

TELEPHONE
1852
NUMBER

TELEGRAPHIC
ADDRESS
CHEMIST LONDON.

THE CHEMIST AND DRUGGIST

CHIEF OFFICE.
LONDON:
42 CANNON ST.
E.C.

Branch Offices:
MELBOURNE,
SYDNEY,
and NEW YORK.

ENGLAND -- 1859. AUSTRALASIA .. 1885.

Registered as a Newspaper

[Registered for Foreign Transmission.]

Prix de l'abonnement :—The Chemist and Druggist
une fois par semaine, et l'agenda du Chemist and
Druggist une fois par an, 12 50 francs par an,
franco.

Abonnementspreis :—The Chemist and Druggist
einmal wöchentlich, und Notizkalender des Chemist
and Druggist einmal im Jahre, 10 Mark jährlich,
frei in's Haus geliefert.

Precio de suscripcion :—The Chemist and Druggist,
una vez por semana, y el Agenda del Chemist and
Druggist una vez al año, 12 50 pesetas anuales,
franco.

No. 504. VOL. XXXV.

DECEMBER 14, 1889.

Subscription, 10s. Per Annum, Including
Diary, Post Free the World over.
Single Copies, 4d. Each, Post Free.

ALLEN & HANBURY'S,

Manufacturers of Cod Liver Oil, Malt Extract, and Pharmaceutical Preparations,
Also of MEDICATED and other LOZENGES and IMPROVED JUJUBES,

WHOLESALE & EXPORT DRUGGISTS,

PLOUGH COURT, LOMBARD STREET, LONDON, E.C.
Works—Bethnal Green, E., and Longva and Kjerstad, Norway.

TELEGRAPHIC ADDRESS—"ALLENBURY'S LONDON."

UNGUENTUM LANOLINI (LANOLINE OINTMENT BASE).

On account of its sticky nature, Lanoline was objected to by some physicians, but this objection has now been overcome by the introduction of a Lanoline Ointment base—Unguentum Lanolini—which is applicable wherever, formerly, lard or any other old ointment bases have been used. Its advantages may be summed up as follows :—

1. It never turns rancid.
2. It is grateful to the tenderest skin.
3. It is non-sticky and can be readily washed off.
4. It is aseptic; no bacteria or microbes can live in it, or pass through a thin layer

when spread over a fresh wound.

Lanoline (Lieberich) supplied to the trade in 1 lb. and 7 lb. tins at 2s. 8d. per lb. Anhydrous Lanoline (Lanolinum Anhydricum), at 3s. 4d. per lb.
Lanoline Ointment Base (Ung. Lanolini), 2s. 2d. per lb. Anhydrous Lanoline Base, 2s. 10d. per lb. Lanoline Cold Cream supplied in pots at 14s. per doz.
Lanoline Hazeline Ointment, in pots at 14s. per doz. Lanoline Pomade, in pots at 14s. per doz. Lanoline Toilet Soap, 8s. per doz. Lanoline Eucalyptine Soap, 8s. per doz. Lanoline Pinol Soap, 8s. per doz. Toilet Lanoline, in tubes at 4s. 6d. per doz. Lano Creolin, in tubes, at 9s. per doz.
Above Prices Subject to Usual Discount.

BURROUGHS, WELLCOME & CO, SNOW HILL BUILDINGS, LONDON, E.C.

FINEST GREEN OLIVE (P.B.),
in tins (1 lb. to 7 lb. net),
Makers of **CARBOLIC** (10% acid)

IMPERIAL,
firkins, & all
and other
FINEST PALE,
sized packages.
Soft Soaps.

CHISWICK SOAP COMPANY

Telegrams—
Soft Soap London." **CHISWICK SOAP COMPANY, LONDON, W.** Telephone—
No. 8558.

MAY & BAKER

(W. G. BAKER, R. C. HEATH, T. TYRER, W. E. B. BLENKINSOP),

**Manufacturing Chemists,
BATTERSEA, LONDON, S.W.**

MEDALS, 1851, 1855, 1862, 1867, 1885, 1887, 1888.

MAKERS OF

**PURE MINERAL ACIDS,
BENZOIC ACID AND ALL BENZOATES.**

(PURE) **ETHERS** (METHYLATED)

For ANÆSTHETICS, PHOTOGRAPHY, and ICE MAKING.

BISMUTH PREPARATIONS,

SOLUTION OF AMMONIO-CITRATE OF BISMUTH, P.B.

CORROSIVE SUBLIMATE,

RED & WHITE PRECIPITATE,

PURE CALOMEL,

AND EVERY MERCURIAL PREPARATION.

CONCENTRATED FRUIT ESSENCES AND FLAVOURS,

PHENACETIN,

The New Anti-Pyretic and Anti-Neuralgic.

SULFONAL,

The New Hypnotic.

CYANIDES OF POTASSIUM

FOR GOLD AND SILVER PLATING AND PHOTOGRAPHY.

LIQUID AMMONIA, '880.

REFINED CAMPHOR,

IN BELLS OR TABLETS, BY A NEW PATENT PROCESS.

MAY & BAKER'S Manufactures may be ordered
through any Wholesale House.

STEVENSON AND HOWELL

FELLOWS
OF THE
CHEMICAL
SOCIETY
&c.&c.

EXTRA QUALITY
SOLUBLE ESSENCE
OF
JAMAICA
GINGER

A PERFECT
GINGER ESSENCE
See The Lancet, July 3rd 1886

HIGHLY
CONCENTRATED
FRUIT
ESSENCES

HARMLESS
VEGETABLE
COLOURS
FREE FROM ANILINES

SOLUBLE
CONCENTRATED
COLOURINGS
FOR ALL LIQUIDS.

ALL MATERIALS
REQUIRED BY
MINERAL WATER
MAKERS,
CORDIAL MAKERS,
RECTIFIERS & DISTILLERS,
BREWERS, &c.

MANUFACTURING CHEMISTS
DISTILLERS
AND IMPORTERS OF

ESSENTIAL OILS

OF
GUARANTEED PURITY
PURE CONCENTRATED

SOLUBLE ESSENCES

FRUIT-ESSENCES



SELECTED
OIL OF LEMON
GUARANTEED
ABSOLUTELY PURE.

SOLUBLE ESSENCE
OF
LEMON,
SWEET ORANGE
BELFAST GINGER ALE

TANGERINE
FRUIT
CHAMPAGNES.
&c. &c.

AMERICAN
FOAM SYRUP,
FOR GIVING A CLOSE
CREAMY HEAD TO
ALL BEVERAGES

ALL MATERIALS
REQUIRED BY
CONFECTIONERS
BISCUIT MAKERS
WHOLESALE
TOBACCONISTS,
SOAP MAKERS,
PERFUMERS,
&c. &c.

PURE COLOURINGS

OF EVERY DESCRIPTION

ANALYTICAL AND CONSULTING CHEMISTS

STANDARD WORKS,
95A SOUTHWARK ST., LONDON. S.E.
AND 128, HOPE ST., GLASGOW.

NOTICE OF REMOVAL

ESTABLISHED AT

95 BISHOPSGATE STREET,

1714.



TRADE MARK.

ESTABLISHED AT

95 BISHOPSGATE STREET,

1714.

HEARON, SQUIRE & FRANCIS

Analytical and Manufacturing Chemists,

WHOLESALE AND EXPORT DRUGGISTS,

HAVE REMOVED FROM

5 COLEMAN STREET,

Where they have carried on business for over a Quarter of a Century, to

COMMODIOUS AND MORE EXTENSIVE PREMISES

AT

38 SOUTHWARK STREET, S.E.

PLEASE NOTE!

That Owing to Increase of Business

ARTHUR W. SHIRLEY

SOLE MANUFACTURER OF THE

A1 BRAND MENTHOL CONES

WILL REMOVE INTO

LARGER PREMISES

AFTER CHRISTMAS.

THE NEW ADDRESS WILL BE

55 FARRINGTON ROAD,

Half a Minute from the Farringdon Street Railway Station.

THE INJUNCTION MADE PERPETUAL.

WARNER'S "SAFE" CURE

IN THE HIGH COURT OF JUSTICE, CHANCERY DIVISION.

H. H. WARNER & COMPANY v. J. WARNER.

NOTICE IS HEREBY GIVEN that on the 28th day of November, 1889, Mr. Justice Stirling granted a **PERPETUAL INJUNCTION** restraining the Defendant, J. Warner, of 71 Chancery Lane, London, from selling or from in any manner representing, or procuring to be represented, the Defendant's goods as the goods of the Plaintiffs, or in such a manner as will lead to the belief that they are the goods of the Plaintiffs, and his Lordship ordered the Defendant to pay the costs of the action.

TRADE MARK PROTECTION SOCIETY,

No. 1 Furnival Street, London.

Dated this 28th day of November, 1889.

The attention of Chemists, Medicine Vendors, and the Public generally is called to the above decision and judgment. All similar attempts at imitation and infringement of our rights will be summarily prosecuted. Information respecting further infringements should be sent to

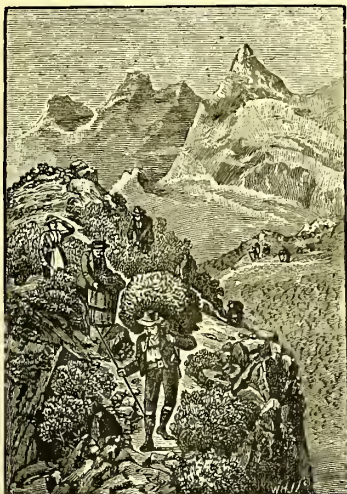
H. H. WARNER & CO.

86 CLERKENWELL ROAD, E.C.

SOLE PROPRIETORS

WARNER'S "SAFE" REMEDIES.

A PINE HARVEST ON THE ALPS.

COLLECTING THE PUMILIO PINE TOPS FOR
G. & G. STERN'S PUMILINE.

STERN'S PUMILINE

EXCLUSIVELY OBTAINED FROM



THE SNOW-GROWN PINUS PUMILIO.

For

PREPARATIONS

Rheumatism, Gout, Throat & Chest Affections, & Skin Disease.

PUMILINE ESSENCE

Is a specially prepared volatile essence, distilled from a particular variety of pine, growing nearest the snow level on the Alps. It possesses exceptional medicinal properties when given internally, or in the form of inhalations, in the treatment of Pulmonary and Diathetic Affections, such as Phthisis, Rheumatism, Gout, &c. It is a valuable deodorizer and disinfectant, and has a peculiarly refreshing and fragrant odour.

PUMILINE JUJUBES

For Sore Throat, Cough, Hoarseness, &c., they give immediate relief.

PUMILINE LINIMENT

Specially beneficial for use in Chronic Rheumatism, Gout, Lumbago, Sciatica, &c. It is also invaluable for Throat and Chest Affections, and may be taken internally, in doses of 2 to 5 drops.

PUMILINE PLASTER

Is most effective in Chronic and Muscular Rheumatism, Lumbago, Sciatica, and also for Chest Affections.

One of the Physicians to **H.R.H. THE PRINCE OF WALES** writes:—"Nothing gave my patient so much relief as Stern's Pumiline."

Sir Morell Mackenzie writes:—"I consider most valuable preparation. It acts as an admirable tonic to the mucous membrane in cases of Bronchitis and Laryngeal Catarrh."

Another Eminent Physician writes:—"My patient was more quickly relieved by the use of Stern's Pumiline Jujubes than by any other means made use of by me during an experience extending over thirty years."

An Eminent Surgeon, F.R.C.S., writes—"I have used the Jujubes for Sore Throat and Loss of Voice, always with marked benefit. They are most agreeable and most reliable."

OVER 700 MEDICAL TESTIMONIALS AND NOTICES IN ALL THE LEADING MEDICAL JOURNALS.

G. and G. STERN'S TRADE PRICE LIST leaves a very large margin of profit to Chemists and the Trade generally, viz.:—

PRICES—

	RETAIL	WHOLESALE.
PUMILINE ESSENCE	1/6 and 2/6 per bottle.....	15/ and 24/ per dozen.
PUMILINE EXTRACT	1/ per bottle.....	9/ per dozen.
PUMILINE JUJUBES	1/1½ and 2/3 per box	10/6 and 20/ per dozen.
PUMILINE OINTMENT	1/1½ and 2/9 per pot.....	11/ and 27/ per dozen.
PUMILINE LINIMENT	1/1½ and 2/9 per bottle	11/ and 27/ per dozen.
PUMILINE SOAP... (box of 3 cakes).....	1/6 and 9d., and 1/ per tablet.....	15/, 7/6, and 9/ per dozen.
PUMILINE PLASTER	1/1½ each	9/ per dozen.
PUMILINE DRY INHALER	1/6 each	14/ per dozen.

BESIDES WHICH AN ADDITIONAL DISCOUNT IS ALLOWED TO CHEMISTS AND THE TRADE.

G. & G. STERN, 62 Gray's Inn Road, LONDON, W.C.

Will send Show Cards and Literature Free on Application.

Telegrams—
"LINT LIVERPOOL."

SEASON
1889 - 1890

London Depot—
25 LIME ST., E.C.

DO NOT PLACE YOUR ORDERS FOR CHEST PROTECTORS UNTIL
* YOU HAVE SEEN SAMPLES AND PRICES OF THE *

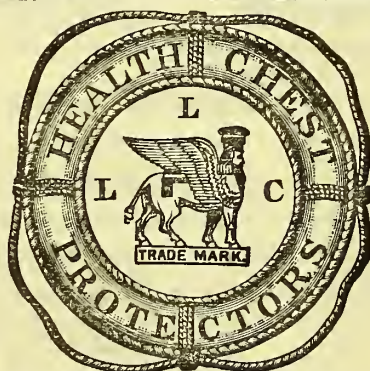
"Health"

Chest Protectors

REGISTERED AND MANUFACTURED BY

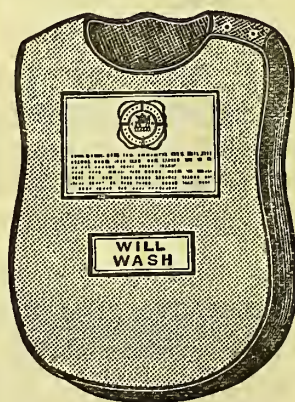
THE LIVERPOOL LINT CO.

MARK STREET MILLS, LIVERPOOL.



Made from the finest Lamb's Wool, and being warm and porous permit free exhalation, and promote the healthy action of the Skin.

They may be washed without injury, thus the unpleasant feeling of wearing Felt and Chamois Protectors which are not clean is done away with.



EACH PROTECTOR BEARS THIS LABEL, WITHOUT WHICH NONE ARE GENUINE.

MAW'S

EARTHENWARE INHALERS

For Hot Water, Infusions, &c.

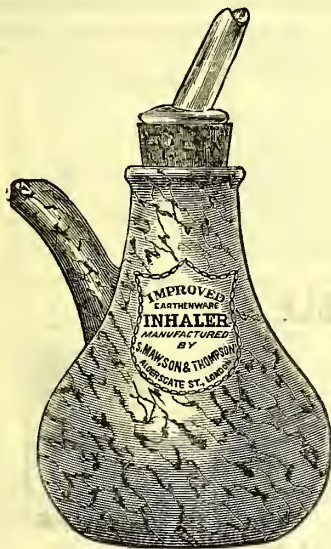


FIG. 8.

MAW'S IMPROVED.

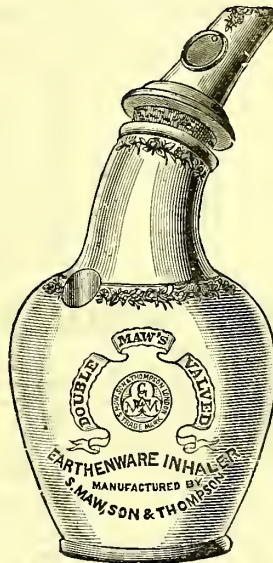


FIG. 6.

MAW'S DOUBLE-VALVED.

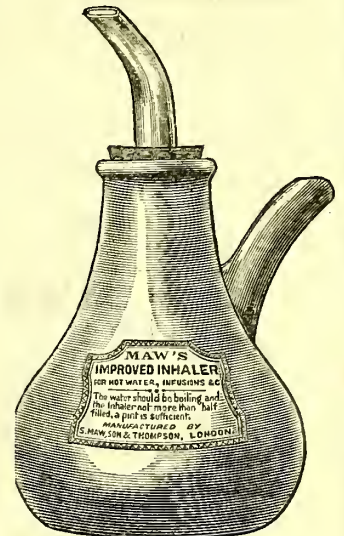


FIG. 8a.

MAW'S IMPROVED.

Fig. 6.—Double-Valved, 60/- per dozen; with Elastic Tubes, 78/-

Fig. 8.—Marbled, 32/- per dozen.

Fig. 8a.—White, 21/- per dozen.

Fig. 8a.—White, half size, 13/- per dozen.

ELASTIC TUBES, with Mouthpieces, to fit Fig. 8 and 8a, 7 inches long, 8/- per dozen; 9 inches long, 12/- per dozen.

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

MANUFACTURED BY

S. MAW, SON & THOMPSON, LONDON.

“ACME BRAND” MENTHOL CONES.

Book your wants for “Cones.” Menthol keeps advancing; but at present
OUR PRICES ARE UNCHANGED.

With Orders of £1 5s. we will supply a Pretty China Group, with Sign-post bearing lettering (this makes a striking Advertisement in any Window); or a Japanese figure 18 inches high, with board with Inscription, Japan being the “home” of Menthol. This makes an appropriate and telling show figure.

No. 88.	Hard Wood Boxes, Pedestal Shape	1/9 per doz.	No. *206.	Boxwood Boxes, as No 203, large size.....	3/3 per doz.
89.	Nickel Screw Capped Bottles, 80 grm. Cones.....	3/3	*207.	“ “ Draughtsman Shape	3/6
90.	“ “ “ 60 “	2/9	*207B.	“ “ “ small size ..	2/3
92.	“ “ “ 30 “	1/11	*208.	Vegetable Ivory, “	4/9
*161.	Boxwood Boxes, Acorn Shape.....	3/2	*210.	Boxwood Boxes, Acorns, Nickel-plated Caps	3/6
*162.	“ “ Pedestal Shape, Screw Lids	3/-	*211.	Vegetable Ivory Boxes, Nickel-plated Caps	4/-
*163.	Vegetable Ivory, Acorn Shape	4/-	*212.	Boxwood Boxes, Bullet Shape, reversible end.....	3 5
*200.	Boxwood Boxes, Pedestal Shape	2/2	213.	Menthol Charms for Watch Chain, &c.	2/1
*201.	“ “ Barrel Shape, Screw Lids	3/-	214.	Glass Show Bottle, with Cone on Stopper	3/10
*201B.	“ “ “ extra large Cone ..	4/3	214G.	“ “ “ extra large Cone ..	5/1
*202.	“ “ “ Bullet “	3/-	*216.	Boxwood Boxes, Beer Bottle Shape, large Cone ..	4/-
*203.	“ “ “ Cone “	3/-	217.	Glass Show Bottle, with Cone on Stopper	2/9
*204.	Vegetable Ivory, Oastle	4/3	218.	Menthol and Court Plaster, in Nickel Cases	3/9
205.	Boxwood Boxes, Cone Shape, each in box	2/6			

NEW PATTERNS, SPECIALLY SALEABLE.

No. *217F.	Glass Show Bottle, with foot, as fig. 88	1/8 per doz.
*217A.	“ “ “ as fig. 161.....	3/-
*214A.	“ “ “ as fig. 161. This has a very large Cone.....	4/3
220.	Cone Shape, as fig. 203, each in slide box, 1 dozen in Outer, extra size	4/3
*221.	Large Flat Draughtsman, very large Cone (120 grains)	4/9
222.	Elegantly-cut Show Glass Bottles, 3 cuttings	9/-
224.	Enamelled Tin Box, with Printing on box, 30-grain Cone	1/6

*All Patterns marked thus * may be had 2d. dozen less in Plain Card Boxes, instead of our Registered Hanging Glass Show Case.*

*All Patterns marked * may be had Curved where possible, at same reduction as for Plain Boxes.*

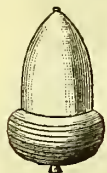
To meet the requirements of those who require

CHEAP MENTHOL CONES

we have decided to offer them at lower prices than hitherto.

We guarantee them all pure Menthol, of best quality.

No. 207s.	Draughtsman Shape, Polished Willow Boxes, usual 1s. size	20/- per gross.
202s.	Bullet “ “ “ “ “ 9d. “	13/6
206s.	Cone “ “ “ “ “ 9d. “	13/6
201.	Barrel “ “ “ “ “	13/6
219.	Bottle “ “ “ “ “ 1d. size	8/-



163.



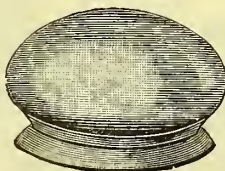
201, 201B, 201s.



88, 162.



202, 202s.



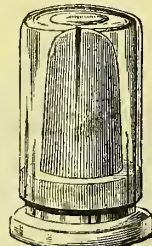
207, 207B, 207s.



220, 203, 205, 206, 203s.



89, 90, 92.



212, 214G, 217.



161, 210, 211.

These Prices are for not less than Half a Gross, one Pattern or Assorted.
All Boxes are best finished, and with label branded on box, except Nos. 216, 221, and 220, and the Glass Show Bottles and Cheap Series.

SPECIAL PRICES FOR QUANTITIES AND LOOSE CONES.

Branded Boxes may be had with Buyer's own name if desired. Particulars on application.

HOCKIN, WILSON & CO.

13 to 16 New Inn Yard, 186a Tottenham Court Road, LONDON, W.

AND MANCHESTER.

TO CHEMISTS.

A FEW WORDS ON "VINOLIA."

The reception and widely established substantial reputation of Vinolia are due to the fact that it fulfils a function which nothing has ever done in the same measure. It does not even exert the slight stimulant action characteristic of most fats, but is bland and soothing, yet free from narcotics and other toxic ingredients. It is noteworthy that it is not sticky or greasy, and also that it is the only unguent that will wash off. It contains no unstable oleates, and will not turn rancid. It is the only agent that will relieve the most intolerable itching every time ; thus in all forms of skin irritation its usefulness is supreme. The leading medical men of the world prescribe it, and chemists themselves are amongst our most favoured and favouring users. For eczema, burns, piles, chaps, chilblains, &c., it is *facile princeps*.

A FEW WORDS ON "VINOLIA" SOAP.

There are soaps and soaps—soaps with flowers figured upon them in *bas-relief*, soaps of lovely tints and rare and attractive perfume, and soaps as cheap as dirt. But a goodly outside is no voucher of a goodly substance. So we find alkalies lurking in even finest toilet soaps, and causticising the skin, drying it, and predisposing it to all manner of troubles, and aggravating diseases already established. Vinolia Soap is superfatted, lathers freely, does not crack, and wears away slowly. Another thing : It contains less water than any other soap. It is not generally known that "the cow with the iron tail" has yielded as much soap as milk ! There are plenty of soaps containing forty per cent. of water. On this score alone Vinolia Soap is the cheapest of all soaps. Chemists, use it for your infants and in your own families. There is no reason why you and your families should not enjoy as well as supply some of the luxuries of the earth.

BLONDEAU & CIE.,
RYLAND ROAD, KENTISH TOWN, LONDON, N.W.
11

EXCHANGE COLUMN.

This section of "The Chemist and Druggist" must be closed for press by Thursday noon of each week.
Remittances payable to EDWARD HALSE.

TERMS

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of 1d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.," and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as e.g., £1 10s. 6d.

DEPOSIT OF MONEY.—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us, accompanied by a commission of 6d. if the amount is £3 or under; and 1s. if over that sum. We acknowledge receipt of deposit to both parties, and hold the money until we are satisfied that either the goods are returned to their original owner or the purchase is completed.

Postal orders and cheques sent as deposit must be made payable to Edward Halse, and crossed "Martin & Co."

FOR DISPOSAL

Drugs and Chemicals.

Poppy heads.—5s. 1,000; bag 6d.; sample 3d.
Connor, Chemist, Doncaster.

Surplus stock.—I have 3 or 4 cwt. Cape gum acacia (small sorts); what offers for any quantity? H. E. Williams, Chemist, Wind Street, Swansea.

Literature.

Whitla's "Materia Medica, Pharmacy, and Therapeutics," latest edition; 6s. 9d. A. M. Shepherd, Chemist, Aberdeen.

The "Family Herbal" (Hill's), coloured illustrations, half-calf, 1812, 10s.; *The Chemist and Druggist* from commencement of weekly issue, 1886, complete, 20s. Macdonald, Chemist, Newington, Edinburgh.

Formulse.

Reliable recipes, 6d. each; full set of 130 neatly copied in book, 7s. 6d.; send for list.
"Chemist," Edwards, Wye, Kent.

Set of 20 practical veterinary recipes, now in use in old-established practice, 2s. 6d.; others as advertised. Johnson, 61 Furness Hill, Sheffield.

Something new!!!—Brooks's reliable recipes bold their own because they are practical.—Send 1s. 6d. for three seasonable ones—
"Winter Balm," entirely new remedy for chapped hands, frost-bites, roughness, &c.;
"Chilblain Remedy," cleanly, safe, and inexpensive, gives instant ease, ultimate cure;
"Balm of Glycerine and Licorice," grandest cough cure extant, cheaply produced, rapidly efficacious, suited for children and adults; detailed list of 400 recipes free. Tom Brooks, Chemist, Hornsey, N.

Shop Fittings.

Immediate Disposal.—Mahogany nest of drawers, glass knobs, gold labels, good condition, Treble's make, with lockers, height 4 ft., length 7 ft. 4 in., depth 10 in.; price £3 10s., cost £10; mahogany dispensing counter and screen, good as new, sell cheap. 315 Edgware Road, W.

First-class mahogany fittings of one of the best-fitted shops in Leeds; entire or separate.
Slater, Beeston Hill, Leeds.

Glass bottles, job lines.—About 50 gross 3-oz. pale green pomades for corks, 4s. 6d. per gross; 2 gross 6-oz. screw nickel-capped pomades, 16s.; 1 gross 16-oz. ditto, 30s.; 3 gross ½-pint (reputed) green syrups, 7s.; 4 gross ¼-pint ditto, 10s.; 2 gross 1-pint ditto, 15s.; 3 gross 1-pint ditto, 20s.; 3 gross 2-oz. white globe-necked panels, 7s. Hearn, 381 Kingsland Road, London.

Mahogany-top counter, fitted with drawers and till complete, 11 ft. long, 7½; mahogany desk and upright glass case combined, 3½; two 6 ft. run superior mahogany drug drawers, 4½ each; splendid plate-glass wall case, 6 ft. long, standing on 9 ft. run large mahogany drawers, f.r. side of shop, 15½, or either separately; two handsome 24-inch specie jars, 15s. each; two 4-gall. pear carboys, stoppered, 5s. 6d. each. Kemp, Horncastle.

Job line.—Hand-made shop rounds, wide and narrow mouth—4 oz., 3s. 6d.; 6 oz., 3s. 6d.; 8 oz., 4s.; 10 oz., 4s. 6d.; 12 oz., 5s.; 16 oz., 5s. 6d.; 20 oz., 6s.; 24 oz., 6s. 6d.; 32 oz., 7s. 6d.; 40 oz., 8s. 6d.; 80 oz., 10s. Also glass graduated measures, 1 to 20 oz., compo pestle and mortars, Nos. 1 to 11; ointment jars, dispensing screens, wall and counter glass cases, sponge and tooth brush cases, specie jars, carboys, pill machines; also the entire fittings and utensils of chemist's shop, 50½. Natali & Co., 184 Aldersgate Street (nearly opposite Maw's). Established 1863.

Miscellaneous.

Sponge case mahogany and plate-glass, handsome, convenient, 7½ 15s.; great bargain. 15½/3.

Very powerful achromatic microscope, complete in mahogany box, good as new, with ten objects, 25s. 187/32.

52-in. globular outside lamp and bracket, complete, coloured glass, 30s. "Pharmacy," 25 Queen Street, Ramsgate.

Dispensing scales, fig. 7, good as new, 12s
Macdonald, Chemist, Newington, Edinburgh.

New run honey, beautiful colour; in crocks holding about thirty pounds, 6d. lb., crocks included. Johnson, Chemist, Godalming.

50 boxes choice Princesses cigars, 7s. 6d. 100, cost 11s.; 12 boxes, in dispute, cost 15s., price 10s. 6d. 100. Slater, Beeston Hill, Leeds.

10 boxes choice 1885 Havana cigars, cost 34s., price 24s. 100; 25 50's choice cigars, cost 11s. 6d., price 6s. 6d. Slater, Beeston Hill, Leeds.

Clarke's patent syphon hygienic stove, Bunsen burner, in use two winters; price 15s. Thos. Barraclough, 42 Chapeltown Road, Leeds.

Strong iron petroleum tank, 80 to 100 galls., 30s.; four oil tanks, about 50 galls. each, 20s. each; clean, perfect, brass taps; all well made; in use till now. Kemp, Horncastle.

Job line.—Cheap little Turkey sponges, soft as velvet, for bathing wounds, eyes, &c., 1s. doz., 3 doz. 2s. 6d., free; large honeycomb hold gallon water, finest quality, 8s. 6d., on approval. Brooks, Chemist, Hornsey, N.

Microscopic objects of every description; entertaining slides suitable for evening exhibition, 5s. dozen, list free; 4 dozen slides sent, carefully packed and postage paid, for 21s., to Australian colonies, Belgium, Canada, France, Germany, India, New Zealand, South Africa; stereoscope slides wanted in exchange. Henry Ebbage, 344 Caledonian Road, London.

WANTED.

Squire's "Companion," latest edition. Price to 182/18.

Stove, gas or oil. Particulars to McMillan, 47 Sandy Road, Seaforth.

Last edition Bentley & Atfield; state price. Fairbanks, 255 Grange Road, Birkenhead.

French "Codex," Cooley's "Cyclopædia," latest editions. State price to Golds, York Town, Farnborough.

JOHNSON & JOHNSON

NEW YORK and LONDON,

MANUFACTURING CHEMISTS,

MANUFACTURERS OF ALL VARIETIES OF

MEDICINAL AND SURGICAL PLASTERS IN RUBBER COMBINATION

(PERFORATED AND PLAIN), AND ISINGLASS AND MUSTARD PLASTERS.

ALSO MOIST ANTISEPTIC DRESSINGS & ABSORBENTS.

IMPROVED BELLADONNA PLASTER.

Increased action by the addition of Boracic Acid and a mild rubefacient, by which the activity of the cutaneous glands is stimulated, and their power of absorption increased.

We have succeeded in greatly increasing the therapeutic value of Belladonna and other Plasters.

FIRST.—By preparing the mass in a manner calculated to promote a more rapid absorption of the incorporated drug.

SECOND.—By employing (in Belladonna Plaster) a more reliable extract of the drug than is commonly used.

The attention of manufacturers of Medicated Plasters has hitherto been directed chiefly toward perfecting the mechanical excellence of their preparations, overlooking, to a certain extent, the real end and aim for which Plasters are made.

The extent to which counter-irritants, solvents, detergents, &c., can be utilised in Plasters to produce a mechanico chemical alteration of the epidermis, thus rendering the skin more absorptive, has been largely if not entirely overlooked.

By the addition of Boracic Acid and a mild rubefacient to the regular Belladonna Plaster formula, several important advantages are secured. The fatty matter in the pores is dissolved by the detersive action of the former, and the glands are expanded and stimulated by the counter-irritative action of the latter, by which means not only is a larger proportion of the medicinal element of the Plaster absorbed, but the therapeutic effect is both increased and more rapidly obtained.



ANTISEPTIC TABLETS.

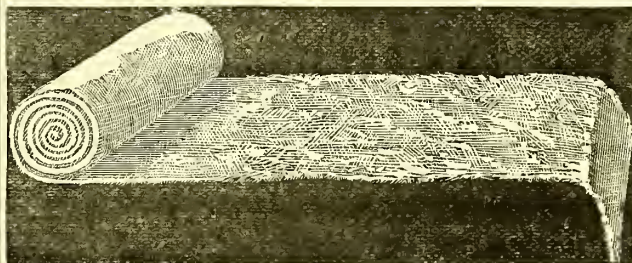
The increasing demand for antiseptic agents in a convenient form has induced us to prepare Corrosive Sublimate Tablets after the following formula:

Corrosive Sublimate, gr. 7, 3.
Ammonium Chlor., gr. 7, 7.

The ammonium chloride is used to make the solution permanent so that the corrosive sublimate will not be precipitated by the organic matter usually contained in water. Each Tablet contains the requisite amount of corrosive sublimate to make a solution of 1-1000 when added to a pint of water.

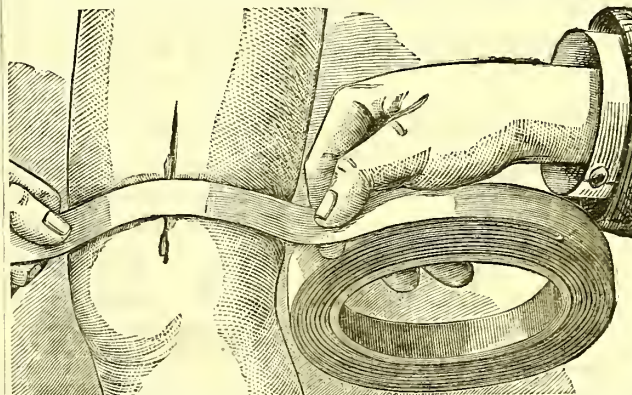
ABSORBENT COTTON IN EVEN SHEETS

Rolled with Tissue Paper between them to prevent felting.



Cotton in this form is as easily applicable as an ordinary cloth bandage. Its advantages can be seen at a glance. Supplied in all sized Packets from 1 oz. to 1 pound.

RUBBER ADHESIVE PLASTER on HOLLOW CYLINDERS.



Pronounced by Surgeons to be the most convenient form ever devised for adhesive plaster. Besides its convenience it is much cheaper than rubber adhesive plaster on spools. It is put up in width varying from $\frac{1}{2}$ an inch to 3 inches, 5 yards long, in neatly decorated tin boxes.

Our goods are supplied by all the leading Wholesale Houses in Great Britain and Ireland, also by our
SOLE WHOLESALE AGENTS, H. C. MASON & CO., 1 & 2 AUSTRALIAN AVENUE, LONDON, E.C.
who will be glad to forward Lists and terms on application.

When ordering through the Wholesale Houses care should be taken to specify the goods of JOHNSON & JOHNSON'S Manufacture.)

ESTABLISHED 1842.

THE SCHOOL OF PHARMACY*Of the Pharmaceutical Society of Great Britain.*Chemistry, Prof. DUNSTAN, M.A., &c. Practical Chemistry, Prof. ATTFIELD, F.R.S., &c.
Botany, Prof. GREEN, B.Sc., &c. Materia Medica, Mr. E. M. HOLMES, F.L.S. Practical Pharmacy, Mr. JOSEPH INCE, F.C.S., &c.**FORTY-EIGHTH SESSION, 1889-90.***Application for admission to the School, for Prospectuses, or for further information may be made to the Professors or their Assistants in the Lecture Room or Laboratories, 17 Bloomsbury Square, London, W.C.***THE CENTRAL SCHOOL OF CHEMISTRY AND PHARMACY,****173 MARYLEBONE ROAD, N.W.**

For Prospectus apply to MR. JOHN WOODLAND.

**THE CITY SCHOOL OF CHEMISTRY & PHARMACY, LIMITED,
27 CHANCERY LANE, LONDON, W.C.**The Evening Classes are held on Tuesday, Wednesday, Thursday, and Friday, 6 till 10.
Fee from Half-a-guinea per month.

Full particulars of Mr. MAURICE WILLIAMS, Managing Director.

MAJOR, MINOR, AND PRELIMINARY EXAMINATIONS OF PHARMACEUTICAL SOCIETY.**JUST PUBLISHED.**

Royal 32mo, roan. Gilt edges. 528 pages. 6s.

**A POCKET BOOK FOR PHARMACISTS, MEDICAL PRACTITIONERS, STUDENTS, ETC.,
BRITISH, COLONIAL, AND AMERICAN.****By THOMAS BAYLEY, Assoc. R. Coll. Science I.,
Author of "A Pocket Book for Chemists," &c.**

E. & F. N. SPON, 125 STRAND, LONDON.

NEW YORK—12 CORTLANDT STREET.

**THE WESTMINSTER COLLEGE OF CHEMISTRY & PHARMACY,
TRINITY SQUARE, BOROUGH, LONDON, S.E.****THE NEXT COURSE WILL COMMENCE ON TUESDAY, JAN. 7, 1890.**

The object of this School is to impart to Students a thorough pharmaceutical and chemical education of the highest standard, and at the same time to fit them for passing the Minor and Major Examinations of the Pharmaceutical Society.

"This college claims to be the largest pharmaceutical school in Great Britain, and there is ample evidence that it is so, for since it was established about 2,500 have passed through it."—*Chemist and Druggist*.**WILLS'S UNIVERSAL POSTAL SYSTEM.**

Fees—Minor, £11s.; Major or Preliminary, 10s. 6d.

OPINIONS OF THE PRESS.

"Those who cannot attend a school of pharmacy will find 'Wills' Universal Postal System' train them in a way they should go."—*Chemist and Druggist*.
"Mr. Wills, of Westminster College, one of our most thoroughly successful tutors, extends him a helping hand, leaving it simply his own fault, and deserving it, if he blindly labours on in ignorant darkness."—*Magazine of Chemistry and Pharmacy*.**For Syllabus apply to Messrs. WILLS & WOOTTON.****PATENTS, DESIGNS,
TRADE - MARKS.****BERNHARD DUKES,**226 High Holborn,
LONDON, W.C.,

Undertakes all business relating to

PATENTS, DESIGNS AND TRADE-MARKS.

ATTENDANCE IN THE PROVINCES.

PLEASE MENTION THIS PAPER WHEN APPLYING.

**THE LONDON HOMŒOPATHIC HOSPITAL
AND MEDICAL SCHOOL,
GREAT ORMOND STREET.**

A NEW WARD, unoccupied for want of funds, is much needed for Mal Patients, and will be opened so soon as sufficient funds to support it are received. The Hospital now contains eighty beds. Trained Nurses are sent out at moderate fees for Medical, Surgical, or Accouchement cases, the latter specially Certified.

A. OROSS, Secretary.

**A PRACTICAL MANUAL OF VENEREAL AND
GENERATIVE DISEASES:**Including SPERMATORRHEA, PROSTATORRHEA, IMPOTENCE,
and STERILITY in Both Sexes.

As the First Edition is entirely exhausted, and as there is a constantly increasing demand for this work, the author is passing a Second Edition, with Illustrations, through the press, which will be ready early in August.

By M. K. HARGREAVES, M.D.

Assistant Physician to St. John's Hospital for Diseases of the Skin.

LONDON: R. KIMPTON, 162 WARDOUR STREET, LONDON, W.

FORD, SHAPLAND & CO.

Medical Label and General Printers, Lithographers, Engravers, &c.

6 GREAT TURNSTILE, LONDON, W.C

PRIZE AND NEW DESIGNS

FOR

COUNTER BILLS

NOW READY.

Printed in Colours, on White and Coloured Paper, for Chemists' Advertising. A Great Novelty.

ALMANACKS, ETC., FOR 1890
ARE NOW READY. WRITE FOR SAMPLES.

ORDINARY COUNTER BILLS,

On GOOD WHITE PAPER, at LOWEST PRICES ever offered.

10,000 CROWN OCTAVO BILLS (7½ in. by 5 in.) **12/0**

10,000 DEMY OCTAVO BILLS (9 in. by 5½ in.) **17/6**

All other Sizes at equally Low Rates. Samples and Prices on application.

THE WHOLESALE & RETAIL
Druggists' Price Book
By D. ELLIOTT.
NEW EDITION, revised according to the British Pharmacopœia, — 1885. —
Pocket Size. Bound in Leather. Price 8/, Post Free 8½/.

--- LABELS OF EVERY DESCRIPTION. ---

NOW READY FOR 1890,

SACHET, SILVERLOCK'S
Seven Designs
ALMANACKS.

SILVERLOCK'S
PRESENTATION, CARD, AND HANGING

H. SILVERLOCK,
Medical Label and General Printer,
92, BLACKFRIARS ROAD, LONDON. S.E.

--- ILLUSTRATED TRADE CATALOGUES, &c. ---

THE CLINICAL CLERKS' GUIDE TO URINE TESTING.
On 8-fold linen-lined card, 9 in. by 5 in. Price 7d.

PRICE LISTS. PROSPECTUSES.

SAMPLES FREE BY RETURN OF POST.

Chemists' Counter Bills, good quality, 7½ by 5 ... 10,000, 15/;
Chemists' Counter Bills, good quality, 9 by 5½ ... 10,000, 22/6;
Chemists' Slip Labels from 1/ per 1000; a reduction on large quantities.

Chemists' Counter Bills, second quality, 7½ by 5 ... 10,000, 12/6;
Chemists' Counter Bills, second quality, 9 by 5½ ... 10,000, 18/;
Chemists' Pill Labels from 1/3 per 1000; a reduction on large quantities.

PAMPHLETS. SHOW CARDS. SAMPLES FREE BY RETURN OF POST.

ANALYTICAL EXERCISE FORMS, FOR Chemical Students. Arranged by H. BELCHER THORNTON, F.C.S.
Price 6d. per doz. forms.

HOW TO ANALYSE SIMPLE SALTS, SOLIDS AND SOLUTIONS. Specially intended for Beginners, by H. BELCHER THORNTON, F.C.S. 8vo Demy, 48 pages. Price 1/, Post Free.

ROYAL (DICK) VETERINARY COLLEGE,

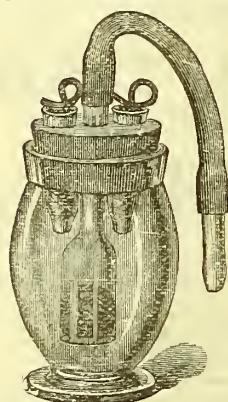
Clyde Street, EDINBURGH.

TRUSTEES—THE LORD PROVOST, MAGISTRATES, and
TOWN COUNCIL of the CITY of EDINBURGH.

The Second Term of the 67th Session begins
MONDAY, 6th JANUARY, 1890.

*Prospectus, with full particulars, on application to
PRINCIPAL WALLY.*

BY ROYAL LETTERS PATENT, NO. 16,713.—DECEMBER 20, 1886.



GODFREY'S CHLORIDE of AMMONIUM INHALER

Catarrhal Throat and Ear Affections, Loss of Voice,
Bronchial Asthma, and Hay Fever.

THE SIMPLEST FORM of INHALER.

VERY PORTABLE. CONTAINS NO WATER.

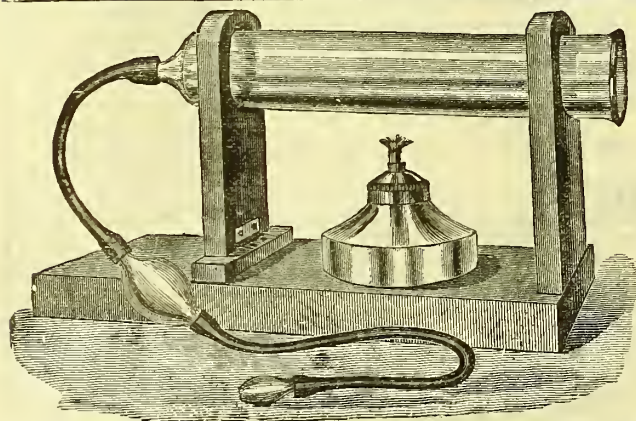
Silver Medal, Brussels Exhibition, 1888. Yields a plentiful cloud of Neutral
Vapour, with little or no effort on the part of the patient.

SHIPPERS & LARGE BUYERS SUPPLIED ON LIBERAL TERMS.

PRICE 7s. 6d. RETAIL.

May be obtained through S. MAW, SON & THOMPSON, London.
Illustrated Prospectus, with the "History of Chloride of Ammonium as a Remedial Agent,"
free by post. **SOLE MAKERS—**

GODFREY & COOKE, 30 Conduit Street, BOND STREET, LONDON, W.



MAXWELL'S CHLORIDE OF AMMONIUM INHALER.

The simplest Apparatus yet introduced to the profession.
Requires no strong caustic or acid liquids.
Fumes are invariably neutral.

To be had of all Chemists and Sundriesmen, and of the Proprietors—

ANDERSON & ADAMS

68 GRAFTON STREET, DUBLIN.

LYNCH & CO., London Agents.

PATENT.

CHEMISTS' CALENDARS FOR 1890.

Before ordering apply to us for SAMPLES. Chemists selling Seeds
should send to us for SAMPLES of our STOCK SEED CATALOGUES.
Do not forget to ask for our **NEW MINIATURE SEED LIST**—
most compact and useful. *Catalogues ready first week in November.*

BLAKE & MACKENZIE, Medical Label & General Printers,
SCHOOL LANE, LIVERPOOL.



SEND FOR SAMPLES.

**CHEMISTS'
ALMANACS
FOR 1890.**

IT WILL PAY YOU to send for Estimates to
BOWERS BROTHERS, 89 BLACKFRIARS ROAD, LONDON, S.E.
MEDICAL AND GENERAL PRINTERS,

10,000 Good Effective Handbills, 7 1/2 in. by 5 in. — from 12/6
Superfine Fly Leaf Note Paper — per ream 8/-

Memorandums — per 1,000 from 5/6
Superfine Envelopes, name on flap — per 1,000 4/ & 5/

UNIQUE ADVERTISEMENT—CHILDREN AND THEIR AILMENTS: HOW TO CURE. A BOOK FOR MOTHERS.

Seed, Powder, Cash, Prescription and Recipe Envelopes in all qualities and in every style of printing Counter and Show Bills, Trade Catalogues, Prices Current,
Business Circulars, and Ornamental Advertising Books at most moderate charges. Specimens and Estimates free. Terms—Cash with Order.

DON'T ORDER BEFORE SEEING BOWERS' TOILETTE GUIDE AND CALENDAR—CHEAP, GOOD, USEFUL.

Special Pamphlet prepared for efficient Advertising. New and Elegant Designs in Types and Ornaments for effective Advertising.

146 MINORIES, LONDON E.C. New York Sydney

SODA WATER MACHINERY

AND ALL ACCESSORIES FOR THE TRADE

BRATBY & HINCHLIFFE LIM.

HEAD OFFICE
SANDFORD ST. ANCOATS, MANCHESTER.

BOXES BOTTLES, MACHINERY, ESSENCES

Catalogues Circulars Testimonials Post Free



SYPHONS & SELTZOGENES

GREAT REDUCTION IN PRICE.

We have recently been entrusted with a most important Agency for the above-named goods. Our Principals are the best known firm in Paris, and the Syphons are undoubtedly the cheapest and strongest in the market. The tops are made of pure English Tin, guaranteed free from lead. The Seltzogenes are made on the well-known "Fevre" system, and each one is thoroughly tested before being sent out.



WE CAN GIVE TO LARGE AND SMALL BUYERS EXCEPTIONALLY LOW PRICES.
PLEASE WRITE US AT ONCE FOR PRICES, STATING QUANTITY OF EACH KIND REQUIRED

SODA-WATER MACHINERY.

MELBOURNE EXHIBITION, 1889, UNPRECEDENTED SUCCESS.

We have obtained at the above Exhibition

3 HIGHEST AWARDS POSSIBLE

A feat never accomplished before by any other house supplying requirements for the Aerated Water Trade.

These awards will carry with them **THREE GOLD MEDALS**, which were awarded as follows:—

1st—SODA-WATER MACHINERY (Highest Award possible).

1st—ESSENTIAL OILS & FRUIT ESSENCES (Highest Award possible).

1st—PATENT AND ORDINARY BOTTLES (Highest Award possible).

WRITE FOR NEW ILLUSTRATED CATALOGUE, POST FREE.

BRATBY & HINCHLIFFE, LIM.

Aerated Water Engineers and Glass Bottle Manufacturers,

SANDFORD ST., ANCOATS, MANCHESTER,

And at 146 MINORIES, LONDON, E.C.

THE DIAMOND MARK.

To secure the best Hungarian Aperient Water

DEMAND THE DIAMOND MARK,And insist upon receiving the **HUNGARIAN APERIENT WATER** sold by the **APOLLINARIS COMPANY (LIMITED), LONDON.**

OF ALL DRUGGISTS AND MINERAL WATER DEALERS.

FAVARGER'S SYPHONS

ARE THE

BEST IN THE MARKET.**HEADS PURE TIN,**

AND

**GUARANTEED FREE
FROM LEAD.****GLASS,****FINEST
ANNEALED.****SYPHONS.****READ**

the following:—

"Edinburgh—

"We beg to say that we have used your
"Syphons for many years, and are very well
"pleased with them. We have tried other makers
"but always found yours superior. We think your
"Syphons the best of any we have seen.
"We are, yours truly, H. C. BAILDON & SON."

"Bournemouth.

"We cannot, we think, do better than tell you that of the Syphon
"supplied us by you, and used by us during three successive seasons, we have no
"had one out of order—if we except two with broken tubes; and only one burst,
"and that on first time of filling. The Plating is, we consider, of special excellence
"and wears well. We shall not need to look farther whilst you continue to supply us with what
"we consider the best value in the market.—Yours truly, J. M. DOWDEN & CO."



PRICES, FULL PARTICULARS, AND TESTIMONIALS, APPLY TO

FAVARGER & CO., 76 TURNMILL STREET, E.C., LONDONBY SPECIAL
H.R.H. THE DUKE OF
ROYALAPPOINTMENT TO
CONNAUGHT AND THE
FAMILY.**BOURNE WATERS.**

THE PUREST IN ENGLAND.

R. M. MILLS & CO., BOURNE, LINCOLNSHIRE,

MANUFACTURERS OF

SODA, POTASH, LITHIA, AND SELTZER WATERS,
LEMONADE, AND AROMATIC GINGER ALE.

4-dozen and 6-dozen Cases Carriage Paid.

Special attention is invited to our manufacture of

LITHIA WATER.Each Bottle contains an average dose of Carbonate of Lithia—
the recognised Specific for Gout.THE LATEST SPECIALITY—the Celebrated Artesian Bourne Water in
Pints and Quarts for Table Use.

Prices and Pamphlet on application

Agents appointed.

Messrs. INGRAM & ROYLE, 52 Farringdon Street, Wholesale Agents for
the sale of our Waters.

HAMBRO SPECKLED

TRADE MARK
REGISTERED.

All Orders by Post receive immediate attention.

LEECHES!Warranted Healthy. Wholesale
and for Exportation. Direct
from Marshes.**FITCH & NOTTINGHAM,**

LEECH BREEDERS,

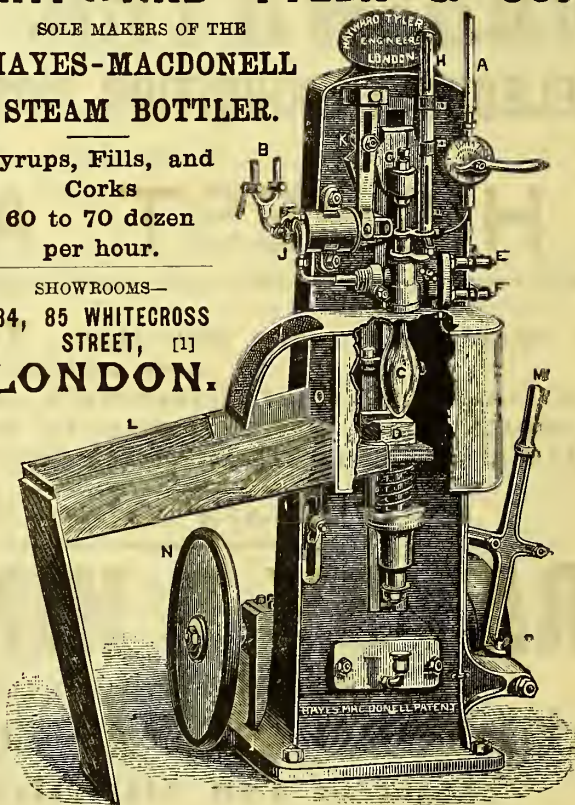
4 CANONBURY SQUARE, LONDON, W

HAYWARD TYLER & CO.

SOLE MAKERS OF THE

**HAYES-MACDONELL
STEAM BOTTLER.**Syrups, Fills, and
Corks
60 to 70 dozen
per hour.

SHOWROOMS—

84, 85 WHITECROSS
STREET, [1]
LONDON.

The Chemist and Druggist

SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, DEC. 14, 1889.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

This Supplement will be given free to any Chemist and Druggist or Assistant who will call for it at 42 Cannon Street on Friday afternoon, or will be posted on Fridays to any one who sends an addressed postal wrapper.

OFFICES: 42 CANNON ST., LONDON, E.C.

ADVERTISEMENTS for this Supplement can be received on FRIDAY MORNING, first post, though it is requested that these may be sent in as early in the week as possible.

EXCHANGE COLUMN ADVERTISEMENTS will appear on page 12 (bottom folio), and must be received not later than THURSDAY AT NOON, to appear in the issue of the Saturday following.

All Advertisements for this Supplement and Exchange Column must be prepaid. Remittances payable to EDWARD HALSE, and crossed MARTIN & Co.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. Orridge & Co. has been known as a Transfer Agency since the year 1843, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—£900.—LONDON, W.C.—Good-class Dispensing and Retail, situate in main road, in large business centre; returns £300 yearly; gross profit 50 per cent.; handsomely-fitted shop; price £800.

2.—£1,100.—LONDON SUBURB, S.W.—An old-established Business; average returns from mixed trade over £1,100 yearly; good opportunity for a pushing man; comfortable house, with garden; rent very moderate; price £800.

3.—£300.—LONDON, S.E.—Prescribing and Retail Business; corner shop, situate in a busy market neighbourhood; the business has been much neglected; returns a little over £300 yearly; good opening for Dentistry; price £150.

4.—£450.—LONDON, N.E.—Family Retail and Dispensing; established many years; returns £450; profits good; handsome shop, fitted by Treble; good working stock; very good house and garden; price about one year's returns.

5.—£1,200.—EASTERN COUNTIES.—Good market town; General and Mixed Business; established over 50 years; returns £1,200 yearly, with good profits; large shop, well fitted, and good stock; price £850 about.

6.—£1,000.—MIDLANDS.—Fashionable locality; Retail Dispensing Business; returns over £1,000 yearly; well-stocked shop, and good house; on lease; valuation only.

7.—£1,000.—PARTNERSHIP.—A partner required in very old-established Retail and Wholesale Business, situate in the Midlands; a gentleman who would not object to travel preferred; about £1,000 required, for which full value is offered.

8.—£1,150.—WESTERN COUNTY.—Old-established Dispensing and Retail Business, with Wine Agency; situate in best position in good market town; returns about £1,150, very profitable; good house and large garden, held on moderate rental; price about £1,000.

9.—£600.—PLYMOUTH.—Attractive and good position; old-established good-class Retail and Dispensing Business; returns over £600, with profits above the average; large handsome double-fronted shop, and good stock; about £500 required.

10.—£2,000.—OXFORDSHIRE.—Mixed Business; returns about £2,000 yearly; business suited to a good business man who will do a pushing trade; price about £1,200.

11.—£500.—SOUTH OF ENGLAND—SEAPORT.—Retail and Prescribing Business; established many years; present rate £500 yearly; good prices; well-fitted shop; good-sized house, with garden; very moderate rent; price £450 or offer.

12.—£600.—SOMERSET.—Good town; select good-class Business, admitting of great extension; returns £600 yearly; good prices; well-fitted shop and large house; rent low; price £550.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & CO. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.
ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

F. J. BRETT,

VALUER, LEICESTER,

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE.

YORKSHIRE.—Village Retail; neglected; good premises, large garden; rent £20; one room let for £6; price £60.

LIVERPOOL.—Good-class Retail; returns about £300; price £170. **WEST.**—Light Retail, Dispensing and Prescribing; no heavy trade; returns £900; price £700, or valuation and small goodwill.

SURREY.—Light unopposed Retail, with Gilbey's Agency; returns £1,200; price £800.

LANCASHIRE.—Very profitable Retail; returns £850; vendor retiring; price £750.

YORKSHIRE.—Good-class Light Retail, in good position, with ample scope for Mixed trade; returns £450; price £300.

GLOUCESTERSHIRE.—Light Retail, with excellent Specialities, having a large sale, in best position of fashionable town; returns £900; price £850, or valuation of stock and fixtures.

MR. SYDNEY GREENWOOD,

CHEMISTS' TRANSFER AGENT & VALUER,

Businesses Thoroughly Investigated (Etab. 1870).

PITTVILLE HOUSE, Lea Bridge Rd., CLAPTON, N.E.

No.	Locality.	Returns.	Rent.	Lease	Price.
1.—	LONDON, S.E.	£750	£100	7, 14, 21..	(Offer wanted.)
2.—	LONDON, W.	£1,000	£55	10½	£500.
3.—	LONDON, E.C.	£1,500	£120	21	£975.
4.—	LONDON, E.C.	£750	£75	24	£450.
5.—	LONDON, S.E.	£352	£54	3	£325.
6.—	LONDON, N.	£500	£50	21	£400.
7.—	STAFFORDSHIRE	£1,000	£40	—	Valuation.
8.—	HAMPSHIRE	£1,000	£50	21	£375.

N.B.—For sale, the entire new fittings and fixtures of a Chemist's Shop, good stock, and utensils recently cost £250 to put in; price £75 to an immediate purchaser; a bargain.

VALUATIONS

A Speciality. Write or wire for terms to Mr. SYDNEY GREENWOOD (as above), who will give the matter his prompt attention.

MESSRS. BERDOE & CO.

CHEMISTS' TRANSFER AGENTS & VALUERS,

30 JEWRY STREET, ALDGATE, E.C.

Established 1870.

VENDORS will find our Offices a quick medium for the Sale of genuine Businesses. Strict confidence guaranteed. Several good-class Businesses wanted returning £700 to £1,500. Town or country.

PURCHASERS are invited to apply (stating their requirements) for particulars of businesses, sent free on application.

NO CHARGE TO PURCHASERS.

MESSRS. BERDOE & CO. have for Transfer:—

MIDDLESEX.—Good-class Retail and Dispensing; returns £850 under management; low rent, valuable lease; price £800.

YORKSHIRE (large town).—Retail Dispensing and Prescribing; returns £450; net profit £200; good house; price £300.

SUFFOLK.—Very select Dispensing trade; returns £500; net profits £250; good house, garden; price £450 or offer.

NORFOLK.—Unopposed Retail and Prescribing; returns £500; rent £16; nice house and garden; price £350 or offer.

DEVON (Seaport).—Retail, Dispensing, and Prescribing; returns £800; price £475; good introduction given.

LINCS.—Market town; Retail, Dispensing, with stationery; returns £1,000; net profit £300; price £700 or valuation.

MONMOUTH.—Same hands 30 years; returns £500; rent £18; large house; price £400; good introduction.

SOMERSET.—Market town, population 10,000; returns £550; net profit £300; price £450; every investigation allowed.

SUSSEX.—Select Retail and Dispensing; returns £700, increasing; rent £35; good house; price £500 or offer.

GLOSTER.—Village trade, doing £550 in Drugs and £150 in Gilbey's; rent £28; price £400; worth attention.

KENT.—Village trade (unopposed), returning under management £4 to £5 weekly, should do £10; rent £16; price £150 or offer.

LEICESTER (Suburb).—Unopposed Light Retail; returns £4 under bad management; rent £18; nice house; price £60.

WEST OF ENGLAND.—Same hands 20 years; returns £2,500; net profit £550; price £1,400 or offer.

LONDON.—Several genuine ready-money Retail, capable of increase; prices from £100 to £300; part can remain; full particulars on application.

Terms for Valuation and Sale on application.

Messrs. Berdoe & Co., 30 Jewry St., Aldgate, London, E.C.

Mr. G. B. CROCKER,

Trade Valuer, Transfer Agent, & Accountant,

15 WALBROOK, E.C.

MIDLANDS.—Country Retail and Dispensing, with Stationery; returns over £500; net profit £180; valuation of stock and fixtures only.

DEVON.—Ready-money Retail and Dispensing; returns £840; price £500; net profit £300; good house.

HOME COUNTY.—Good-class Family and Dispensing trade, with specialities; returns over £700; price £650; good house, and long lease.

KENT.—Retail and Dispensing; returns £700; price £500; very handsome Pharmacy; good house; safe investment.

SURREY.—Country Retail and Dispensing; returns £700; price £500; good house and garden; capital position in centre of market town.

LONDON (Near).—Old-established Retail and Prescribing Trade; now returning under neglected management £630; price £400.

LONDON, S.W.—Main thoroughfare and in busy part; Retail, Dispensing, and Prescribing; returns £750; price £600.

Valuations for Probate or Transfer conducted in any part of the United Kingdom. Terms on application.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

AN old-established Chemist's and Grocery Business for disposal; good position; large shop, double-front, and good house; death of proprietor sole reason for disposal. Apply, executors of J. H. Elmitt, Bull Ring, Horncastle.

SOUTHPORT (Lancashire).—To be disposed of, a Chemist and Druggist's Business; long-established; modern shop (corner), plate-glass front, mahogany fittings; good house attached; rent £50; good reasons for the disposal. P. Scarlett & Sons, Auctioneers, Southport.

TO Chemists and Druggists.—First class suburban Business for disposal, owner having acquired a country business; average sales £550; net profit upwards of 40 per cent.; to ready purchaser, will be sold at a sacrifice; every investigation invited; principals only. Address letters to Thos. J. Savage, Solicitor, 57 and 59 Ludgate Hill, London, E.C.

CHEMIST and Dentist.—For disposal, an old-established Business, in best position for extending business; an introduction given to purchaser; present proprietor retiring from business; excellent profits; ready money; town rapidly increasing; an opportunity seldom met with. Full particulars on application to Marshall, Devonshire Buildings, Runcorn.

MANCHESTER.—Old-established Retail, Dispensing, and Prescribing Business in main road; capable of great increase; returns nearly £400, at good profits; price £350; well-stocked shop, sound investment, and well worthy of attention; pushing man could easily double returns. "Veritas," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

HANDSOMELY fitted, well stocked, and old-established Retail, Dispensing, and Prescribing Business for sale; returns under manager £400; could be doubled by principal; pleasant and growing suburb of London; good house; splendid opening for dentistry; investigation invited. Address, L. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

DRUG STORES.—For sale, old-established Business, now being converted into "Stores;" when fully developed a fortune to young steady man, with moderate capital; excellent market town; rent low; very large surroundings; Proprietor's engagements elsewhere preventing personal supervision, will sell to cash purchaser for valuation. "Statin," 42 Castle Street, Shrewsbury.

BUSINESS WANTED.

WANTED, at once, a thoroughly genuine and reliable Business, returning from £300 to £1,000, in good London suburb or South of England preferred; must be looking into, and early possession is desired; capital at command over £1,000. Send full particulars, in confidence, to "Minor," 6 Union Road, Clapham, S.W.

TO LET.

CITY of Truro, Cornwall.—To be let, early in August, 1890, a Shop, extensive modern Warehouses, and commodious Residence, in best business thoroughfare, where the trade of a Chemist has been successfully carried on for more than 60 years. Apply to John B. James, Tamerton Foliot, Plymouth.

TO LET.—Spacious premises, especially suitable for a Chemist and Druggist, in a commanding terrace of 25 shops, situate in the busiest and most rising thoroughfare in the South of London; large neighbourhood; splendid opening; the only shop unlet; good house accommodation for a substantial tenant; rent £90. Apply, Mr. Jenkin, 28 Queen's Parade, Clapham Junction, S.W.

FOR SALE.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

IODINE.—A Plant and Connection for sale; extensive and convenient premises at low rental; well situated; abundance of water. Apply, A. Best, Guernsey.

FLETCHER Hot-air Gas Stove, 5 copper air tubes, also copper lined; 8 ruby-glass lights. Sent in dozen hamper, paid London; allow 1s. carriage country. Perfect condition; 22s. 6d., or exchange good dental forceps. Sykes, 28 High Street, Plumstead, S.E.

TO Chemists Re-Furnishing.—Small Set of very handsome Shop Rounds, Syrup Bottles, and Pink Ointment Jars, with vitrified gold and enamel labels, all perfectly new and unused; for sale, under exceptional circumstances, at about half price. For particulars, address 195/6, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FOR SALE.—12 ft. range pine drawers, imitate mahogany, glass knobs, gold labels, £6 6s.; 12 ft. ditto, superior mahogany ditto, with bevelled-glass labels and cut glass knobs, £9; one 6-ft. dispensing screen, mirror centre, £5 10s.; one ditto, Gothic design, very handsome, £7 10s.; one desk, with mirror and tablet on front, 30s.; one ditto, with case, 55s.; one sloping plate-glass show-case, 36 by 18, 35s.; one ditto, second-hand, 25s.; one bent-glass toothbrush case, glass shelves, 21s.; one ditto, 25s.; one 12-ft. mahogany top counter, pitch pine front, 90s.; one nest of six counter drawers, 15s.; six 2-gallon carboys, 6s. each; six 3-gallon ditto, 7s. each; four 4-gallon ditto, 10s. each; three 8-gallon ditto, cut stoppers, 15s. each; two upright ditto, ditto, with stands, 10s. each.—R. Tomlinson & Sons, Medical Fitters, Bond Street, Birmingham.

APPRENTICESHIPS.

WANTED, a respectable youth as Apprentice; indoors; premium preference given to one who has passed Preliminary examination Fitton, 30 New Street, Huddersfield.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

BY December 27th; good Junior; knowledge of Postal duties preferred. Particulars to Lemmon, Chemist, Hastings.

WANTED, Junior Assistant; outdoors; must be well recommended; state salary; send photo. Machon, 51 Park Street, Derby.

WANTED, at once, qualified man, for quick Counter trade; only those thoroughly up to their work are desired to apply. Ince, Dudley.

WANTED, Locum-Tenens, from December 23rd, for a week or longer. State terms, references, &c., to Longman, Norfolk Pharmacy Littlehampton.

WANTED for 1st of January, 1889, a good English correspondent for my Chemical Works and Wholesale Drug Business. J. D. Bieber, Hamburg.

JUNIOR; well up in dispensing; able to prescribe and to be left in charge occasionally. Apply, stating age, salary, and references, Bayley, Saltaire.

JUNIOR Assistant in general Dispensing and Retail trade; enclose carte, stating age, height, and salary required. "Chemicus," 11 Abbey Churchyard, Bath.

WANTED at once, a competent trustworthy Assistant for Dispensing and Light Retail; indoors. Full particulars, with carte de visite, to E. H. Croydon, Newcastle, Staffs.

WANTED, active Assistant, able to Manage a General Mixed Business; energetic and good counterman. State particulars to John Snowdon, Chemist, Walmgate, York.

WANTED, immediately, a Junior (qualified) who has been used to a quick business. Apply, with full particulars as to references, salary, &c., to R. J. Owen, Chemist, Wood Green, London, N.

WANTED, competent Assistant; qualified; good counter hand. Apply, with references, salary required, and photo if possible, to J. H. Inman & Co., Northumberland Street, Newcastle-on-Tyne.

IMMEDIATELY; Junior or Improver, of good address, for a first-class Mixed Country business. Apply, with photo and full particulars, to Deighton & Smith, Pharmaceutical Chemists, Bridgnorth, Salop.

CLAPHAM Junction.—Wanted, at once, a Junior, to Dispense for Surgeon a few hours daily, viz. 1-1.30 and 5 to 9.30 or 10. Write, naming salary, to Biggs, 101 Northcote Road, Wandsworth Common, S.W.

WANTED, Branch Manager; Prescribing, Tooth-extracting, and General Light Business; abstainer preferred. Apply, with terms, to W. Hindle, Gorleston, Great Yarmouth. Mutual terms offered; photo will be returned.

TRAVELLERS in provinces (Chemist's and Perfumer's) for Dr. Sheffield's Crème Dentifrice; 25 per cent. on all first orders; largest sale of any in America; advertised largely. The American Toilet Company, 188 Piccadilly, W.

WANTED, a competent Manager for a pushing quick Retail, during illness of principal; assistant kept. State salary (outdoors), age (not under 25), and enclose photo, to be returned, A. R. Fresson, Chemist, 3 Ward Street, Burslem, Staffs.

A N active, energetic and trustworthy Assistant for the 27th inst., about 25 years of age; indoor; no night or Sunday duty; only one kept. Send full particulars with application, enclosing photo (to be returned), to A. G. Prince, Chemist, Longton, Staffs.

WANTED, immediately, an Assistant, for the present as Dispenser, but to Manage Branch in February next; age not to exceed 22; single; personal application only. Dr. Smith, 111 Keeton's Road, Bermondsey, near Spa Road Station, S.E. Railway.

A SSISTANT in charge wanted for Branch business; must be capable to Prescribe and Extract Teeth; plenty of time for study; would suit young man preparing for examinations; abstainer preferred. "Hants," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

E XPERIENCED Traveller, for the Lancashire and Yorkshire district, required by an old-established firm of Druggists and Drysalters. Apply by letter, with particulars and carte, which will be returned, to "Zero," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, for January 1, an Assistant for a Mixed business in Yorks; Minor qualification necessary; a permanency to a suitable man; references unexceptionable; married preferred; state age and salary required. "Xylum," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

I NDOOR Assistant wanted, at the end of present month; gentlemanly address; obliging; good experience; thoroughly trustworthy; capable of taking charge. Apply by letter, stating age, height, salary expected, experience, references, and full particulars, to "Chemist," 1 Grove Lane, Six Ways, Smethwick, Birmingham.

TRAVELLERS wanted, Town and Country, with good connection amongst Chemists and Druggists, to introduce "Dr. Wilson's Pure Cacao," on commission. Apply, by letter in first instance, with full particulars, to the Solidified Cacao and Chocolate Company, 39 Ormond Yard, Queen's Square, London, W.C.

WANTED, Minor man for Dispensary, and to assist at front counter occasionally; must be of good business abilities, steady and reliable. Apply, by letter only, giving full particulars as to age, experience, salary required, and if possible with copies of testimonials and photo, to G. C. Dunsart, 16 Robertson Street, Hastings.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

A S Junior in a good Dispensing business. "Regnum," 22 Charlotte Street, Llandport.

A S Manager; experienced Dispenser and Prescriber. H., 1 Lincoln Road, Horncastle.

E VENING Duty wanted by a qualified man. 13 Railway Terrace, New Southgate, N.

P ART-TIME, or Dispenser to Surgeon; aged 22. "Student," 16 Tybridge Street, Worcester.

A S Turnover (18); 3 years' experience; country town preferred. H. F., 70 Chapel Street, Islington.

I MPROVER or Junior (19); 5 ft. 7 in.; 6 years' experience. Jones, Maestwrog, Llandwrog, Carnarvon.

I MPROVER; 3½ years' experience; aged 22; small salary. "Chemicus," Bethania, Llannon, Aberystwith.

I MEDIATELY; town or country; Dispense, Prescribe, Extract; abstainer; good references. "Pilula," 225 Marylebone Road, N.W.

A S Assistant; 7 years' experience, town and country; tooth extractor; Wales preferred. Parry, Tair Mynydd, Bethesda.

A S Assistant, in good-class business; 26; qualified. "Cannon," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

J UNIOR Assistant or wholesale; 5 years' experience; mixed retail and dispensing; Scotch. A. Kidd, 48 Elmore Street, London, N.

W HOLESAL Druggists.—Wanted, by an experienced Assistant, employment at Wet Counter. H. B., 122 Walworth Road, S.E.

W ANTED, a Dispensary in Dispensary, Hospital, or Public Institution; will pay premium. "Chemist," 74 High Street, Olapham, S.W.

I MPROVER or Junior; New Year; 19½; 5 years' experience town and country; Preliminary; references; abstainer. "Junior," Hickinbottom, Sleaford.

TEMPORARY or otherwise; qualified; aged 30. "Chemist," 17 Pomona Place, Fulham.

ASSISTANT; mixed country business. X., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LOCUM-TENENS; experienced; till end January. A. Morton, 9 Oxford Street (St. Peter's), Manchester.

MANAGER or Senior; outdoors preferred. Particulars of "Chemist," Trinity Square, Llandudno.

AS Assistant; aged 23; qualified; good references. J. E. French, 11 Westfield Terrace, Fulham Road, S.W.

ASSISTANT (24); one or more kept; Dispenser, Prescriber, Extractor; references. Jones, 109 Scholes, Wigan.

MANAGER or Assistant, Wholesale or Retail, with a view to Partnership or Succession. Sykes, Ivy House, Coltman Street, Hull.

ADVERTISER (28), tall, married, one child, thoroughly experienced, seeks suitable berth. "Medical," care of Mr. Membury, Yeovil.

JUNIOR; Liverpool or Manchester; outdoors; understands medicine chests; good reference; obliging; time for study. 9 Myton Place, Hull.

SOUTH of France.—Manager or Senior's post; slight knowledge of French; rapid Dispenser. A. B., care of Mr. Griested, Albourne, Hassocks.

BRANCH or temporary; aged 40; married; experienced dispenser, prescriber, extractor; good references; disengaged. "Chemicus," 70 North Street, N.W.

PRACTICAL Chemist seeks post as Manager or to Travel; first-class references; thoroughly experienced. C. D., care of Mr. Griested, Albourne, Hassocks.

MRS. S. SMITH, 6 Shaftesbury Terrace, Ashley Road, Bristol, Registered Chemist, Manager during absence, illness, or branch previous to disposal; distance immaterial.

MANAGER, Registered; temporary, or permanency preferred; married, no family; in business 20 years; good references. Bellars, 3 Warbeck Road, Shepherd's Bush.

ASSISTANT; accustomed to best-class business; Minor qualification; aged 22; height 5 ft. 11 in.; highest references. A. B. C., 93 Dickenson Road, Rusholme, Manchester.

MINOR Student, entering College of Pharmacy, wishes for evening employment in London (City preferred); good references from present employer. "Radix," 12 Victoria Road, Saltaire.

TO Druggists and Patent Medicine Vendors.—Wanted, employment by respectable man (30), with 11 years' experience and first-class reference to previous employers. E. P., 25 College Street, Dowgate Hill, E.C.

AS Manager or Senior Assistant; outdoors; 13 years' experience; first-class references; good berth abroad or in stores not objected to. Address, Watkins, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS Senior (outdoors) in a good house of business; accustomed only to high-class Dispensing and Retail; 10 years' West-end experience; height 5 ft. 9 in.; aged 31; excellent references; West-end preferred. N., 70 Portland Road, Holland Park, W.

WANTED, situation as Manager; Locum-tenens; permanency; undeniable references; 12½ years' experience; well up in dispensing, prescribing, laboratory work; tall; good appearance; salary 25s. per week. Mr. White, 93 Liverpool Road, London, N.

A GENTLEMAN, having an influential connection amongst Chemists in London and suburbs, also East Coast, is open to treat with a firm for the beginning of the year; highest references. Address, Cecil, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

YOUNG man, tall, of gentlemanly address, with highest references, 2 years' experience, desires to engage for one or two years in a good-class Dispensing business. Replies to "Junior," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C. Disengaged January.

AS TRAVELLER.—The representative of a leading London house, having a fine old connection among the best country Chemists, is open to add another good house that would not clash, and would be willing to share expenses. Address, "Drug," Messrs. Deacon's, Leadenhall St., E.C.

EARLY in January, as Branch Manager, Senior, or position of trust in good business; aged 28; height 5 ft. 11 in.; qualified; accustomed to good-class Retail, Dispensing, and Prescribing; highest references; security given, or, if more desirable, could arrange either now or in the future to put capital in the business. Apply, "Ferrum," 3 Merthyr Terrace, Castlenau, London, S.W.

TO Students.—Assistant, attending Wills' in January, desires a fellow-student to share apartments with. Ching, Witham, Essex.

MISCELLANEOUS.

SPARKLING FROST for Christmas Decorations. 1 lb. sent free for Postal Order for 1s. 6d. Hall, Chemist, Newcastle-on-Tyne.

ALBERT SCHWARZE, Nürnberg, Bavaria, Wholesale Druggist.—Specialité, Marshmallow Root at lowest quotations, whole and cut; prices and samples always at disposal.

DENTISTRY.—First-class Mechanical work undertaken for the Profession at moderate terms; good West-end references as to ability, &c.; punctuality guaranteed. W. E. Hill, 220 High Holborn, W.C.

CHEMISTS and Druggists who are issuing Price Lists for 1890 are requested to send specimen and best rates for Advertisements to Hamilton & Co., Disinfectant Manufacturers, Wandsworth, London, S.W.

BOXES.—LIGHT WOOD BOXES for Chemists and Druggists, for Packing all kinds of articles for sending by post or rail. Cheapest, Strongest, Lightest, and Best. Samples Free, 6 stamps. Write for samples, stating sizes required, inside measure, to Casbon's Joinery and Box Works, Peterborough.

PRELIMINARY AND MINOR.

ALL Students who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. Student's Herbarium, 100 specimens, 7s 6d., post free.

STUDENTS' AIDS TO EXAMINATION.

PRELIMINARY.—Arithmetic and Metric System, 1s. How to Write an Essay, 3d. Caesar Simplified, 1s. Knotty Points in Latin Grammar, 1s. 6d. **MINOR**.—Equations Simplified, 1s. Illegible Autographic Prescriptions, 1s. Notes on Dispensing, 1s. Prescriptions given at the Minor, 6d. "Chemist," care of Mr. J. Edwards, Wye, Kent.

EXAMINATIONS.

MESSRS. BAILLY & COATES prepare Candidates for Matriculation, and the Preliminary Examinations at Apothecaries' Hall and College of Preceptors; careful preparation in Theoretical and Practical Chemistry, Physics, Botany, Materia Medica, and Practical Pharmacy for professional examinations; Laboratory fitted with every requisite. Preliminary Medical School, 30-32 Ludgate Hill, London, E.C.

MAGNESITE, Raw, 2s. per 2 cwt; Powder, 3s 6d. (4s. from January, 1890).

Burnt Cylinder and Magnesite Powder, as before, cheap. Magnesia Silicate, Asbestos Powder, Tripoli of every description, and Polishing Powder. Slate Powder, Polishing Chalk, Silver Polish, Talc Slate, Felspath and Quartz, Emery and Pumice-stone Powder—to be obtained cheap, free Silesia, from Bruck's Fabr. und Gruben Comtoir, Berlin, S.O.

STIRLING'S "MINOR" AIDS.

Organic Materia Medica. Concisely tabulated, thus saving much time and laborious reading. Post free, 1s. 1d.; cloth gilt, 1s. 7d. **Notes on Dispensing**. 3rd Edition. Post free, 1s. 1d. **Botanical Companion for Beginners**. Post free, 7d. **Doses, Sp. Gravities, and Percentages of B.P.** 1385. Vest pocket edition. Post free, 6d. Sold by H. KIMPTON, 82 High Holborn. All orders by post should be addressed to the Publisher.

GOWER, 4 Lancing Road, Ealing, London (late of Hackney).

"A Seasonable Saleable Article."

SPARKLING FROST,
FOR CHRISTMAS DECORATIONS.

In Packets, 1s. each; post free, in one dozen Packets, 7s. 6d.

J. PRESTON (late Cubley & Preston), 4 High St., Sheffield.

Address

TELEGRAMS
"ESSENCES"
MANCHESTER

97 PORT ST
AND ANCOATS ST.

FITZSIMMONS AND FEARNLEY

MANUFACTURING
CHEMISTS

MANUFACTURERS AND IMPORTERS OF

ESSENTIAL OILS

SPECIALY PREPARED FOR

MINERAL WATER MANUFACTURERS
AND
CONFECTIONERS

MANUFACTURERS OF HIGHLY CONCENTRATED

SOLUBLE FRUIT ESSENCES

MANCHESTER



TO AERATED WATER MANUFACTURERS

HAY'S

SOLUBLE ESSENCES

REGISTERED

ARE GUARANTEED TO BE THE FINEST IN THE MARKET

Honourable Mention: International Food Exhibition, Agricultural Hall, London, Oct., 1880. Gold Medal: Soc. of Arts. Paris, 1883.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER,

A Pure Essence of the Finest Ginger.

Trade Price 5/ per lb.; 12 lbs. and upwards, 4/6.

HAY'S FORTIFIED ESSENCE OF JAMAICA GINGER.

For First Quality Ginger Ale.

Trade Price 5/6 per lb.; 12 lbs. and upwards, 5/.

HAY'S GINGER ALE EXTRACT,

For Second Quality Ginger Ale.

Imparts Pungency, Colouring, great Brilliancy, and an unusually Fine Ginger Flavour and Aroma.

Trade Price 4/6 per lb.; 12 lbs. and upwards, 4/.

HAY'S GINGER ALE ESSENCE,

For Third Quality Ginger Ale.

This Essence makes a beverage that is unsurpassed by the so-called finest Belfast Ginger Ale.

Trade Price 9/1b.; 12 lbs. and upwards, 8/6.

THESE ESSENCES

Have obtained the Highest Testimonials from all the Medical Journals, and from the Principal Trade Journals in this and other countries.

TRADE MARK



REGISTERED

For ORANGE, VANILLA, and all other Essences.
SEND FOR PRICE LIST.

HAY'S HOP ALE ESSENCE

For the manufacture of the Finest Aerated Hop Ale. This Essence is made from the choicest Hops grown, and is unrivalled for its peculiarly fine Hop Flavour and Aroma. Hop Ale made from this Essence has the full flavour of the finest Hops, and is a really appetizing Bitter Beer.

Trade Price 8/6 per lb.; 12 lbs. and upwards 8/.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.

No. 1. Highly Concentrated.

Trade Price 8/6 per lb.; 2 lbs. and upwards 8/.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS;

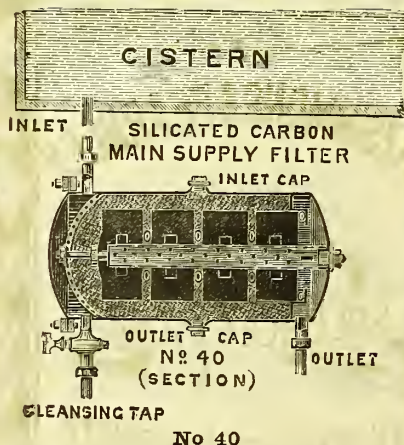
No. 2. Makes an exquisitely fine Lemonade.

Trade Price 8/6 per lb.; 12 lbs. and upwards, 8/.

HAY'S LEMON FLAVOUR.

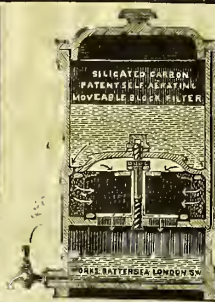
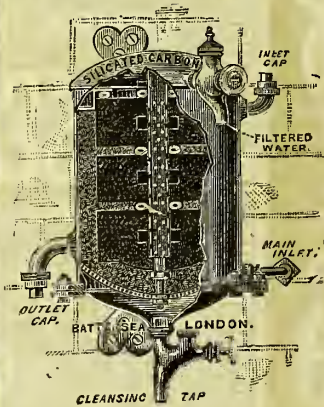
Imparts a Lemonade all the Fine Aroma and Flavour of the choicest Lemons.

Trade Price 5/ per lb.; 12 lbs. and upwards 4/6.

MANUFACTURING
CHEMIST
BEVERLEY ROADSILICATED CARBON
PATENT SELF-AERATING
MOVABLE BLOCK
FILTERS.

Main Supply Filters.

By the use of these Filters, which are of everyday sale, the Flatness of Taste so common in Filtered water is entirely Obviated.

No. 38.
Glass Table
Filters.No. 27.
Domestic
Filters.No. 50.
Constant Supply
Filters.

WRITE FOR FULL ILLUSTRATED PRICE LISTS AND TERMS TO THE

SILICATED CARBON FILTER CO., BATTERSEA, LONDON, S.W.

TELEPHONE, No. 7522

TELEGRAPHIC ADDRESS—"IDRIS KENTISH TOWN."

IDRIS & CO.

The Largest Syphon Fillers in the United Kingdom.

SODA. Brilliant, Pungent, and Sparkling.

POTASH. Prepared according to the British Pharmacopœia.

SELTZER. Pure and Delicious Table Water.

LITHIA of guaranteed strength.

LEMONADE. Pure fruity flavour of ripe Lemons.

PURITY. Water filtered by a special process, by which absolute purity is guaranteed. Distilled water used as required. Pure Chemicals only employed. All Goods are regularly subjected to strict analysis.

ELEGANT SYPHONS. Best Block Tin or Silver-plated Tops. IDRIS & Co. make their own Syphons, and can therefore guarantee freedom from deleterious metal.

LOWEST PRICES for Water, both in Syphons and Bottles. Write for Price List.

PROMPT DELIVERY by our Vans in London and Suburbs. Customers called on regularly once or twice a week. Country orders despatched same day as received.

IDRIS & CO. now supply a larger number of the London Hospitals, Public Institutions, and Chemists, than any other Manufacturers, which is in itself a sufficient guarantee of the excellence and purity of the Waters supplied by them.

"I have examined the Mineral Waters prepared by IDRIS & CO., and find that in regard to Chemical purity and brilliancy, they are unsurpassable."

JAMES EDMUNDS, M.D., M.R.C.P. Lond., &c.

Medical Officer of Health and Public Analyst to St. James's, London.

IDRIS & COMPANY,

KENTISH TOWN, LONDON, N.W.

POTTER AND CLARKE, WHOLESALE AND EXPORT BOTANIC DRUGGISTS

COMPOSITION ESSENCE

OF
FULL STRENGTH

SUPERIOR FLAVOUR

AND
FINE AROMA.

Price 1/- per lb., W. Quart 11d. per lb.

SPECIAL PRICES FOR LARGE QUANTITIES.

6d. & 1/- Bottles, 3/6 & 6/- per dozen.

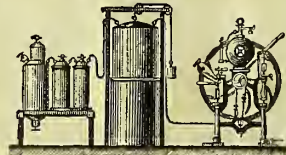
OFFICES AND WAREHOUSE—

5, 6, & 7 Raven Row, LONDON, E.

ALSO AT

MANCHESTER—54 Great Ancoats Street.

AERATED WATER MACHINERY. SYPHONS.



Intermittent Apparatus ... from £17
Continuous ... £40
Syphons, first quality ... „ 1s. 8d.

WRITE FOR OUR No. 6 TARIFF.

PRUDON & DUBOST, Bd. Voltaire, PARIS.

“CYMRU AM BYTH.”

“ABSOLUTELY PURE.”



REGISTERED.

ELLIS'S RUTHIN WATERS.

ASK FOR ELLIS'S.

CAUTION.—Corks branded “R. ELLIS & SON, RUTHIN.” Every Label is Registered, and bears Name and Trade Mark (Goat on Shield).

SOLE ADDRESS—R. ELLIS & SON, RUTHIN,
NORTH WALES.

London Agents: W. BEST & SONS, Henrietta Street, Cavendish Square.

CIGARS, ETC.

At the Lowest Wholesale Prices.

La Juana 10/6 per 100, Sold at 2d. each.
La Trafalgar 15/0 „ „ 3d. „
El Sol Habaners,
Havannah 1885 Crop } 22/ per 100, Sold at 4d. each.
&c. &c. TOBACCO, CIGARETTES, &c.

Samples on receipt of 1s. 6d. in Stamps.

BEWLAY & CO., LTD.

Tobacco Manufacturers and Cigar Importers,
49 STRAND, and at 143 CHEAPSIDE, LONDON.
ESTABLISHED OVER 100 YEARS.

ORANGE & LEMON PEELS (DRIED AND FRESH).

This Season's Peel will soon be ready, and we shall be prepared to supply Fresh Orange and Lemon Peels specially cut, free from pith, and in small shreds (about 1' x 1/8''), in a condition most favourable for the manufacture of the

Official Tinctures.

Samples (as soon as in hand) will be sent free on application.

CHAS. SOUTHWELL & CO. DOCKHEAD, S.E.

MERCHANTS, SHIPPERS & AGENTS

INDENTORS SHOULD SPECIFY OUR MANUFACTURE.

Soluble & Fruit Essences,
ESSENTIAL OILS, COLOURS,
 And all requisites for the **AERATED WATER TRADE**
DUCKWORTH & CO.
 AND 102, FENCHURCH ST. **Manufacturing Chemists**
 LONDON. Corporation St. **MANCHESTER. ENG.**

INDENTORS SHOULD SPECIFY OUR MANUFACTURE.

Our Preparations are **SPECIALLY** Manufactured to meet the Requirements of the **EXPORT TRADE.**

“PREMIER BRAND” ESSENTIAL OILS.

Concentrated Fruit Essences—Soluble

MANUFACTURED BY

JOHN CUMMOCK

Who has received Hundreds of Unsolicited Testimonials, also THREE GOLD MEDALS, besides other Honours.

Chemists manufacturing their own Aërated Drinks should write for Prices and Samples of the following:—

ESSENCE “SPARKLING LIMETTA”—Soluble “Essence of Lemon”

ESSENCE “LEMON SQUASH”—Essence for Sherbet

ESSENCE “TONIC HEADING”—Essence for Ginger Ale

AND COMPARE WITH OTHER MAKERS.

Manufactory & Offices: 45 ROPE WORK LANE, GLASGOW.
 LATE 32 MAIN STREET.



ROBINSON'S LIEBIG'S BEEF WINE.

Composed of Liebig's Extract of Beef, Extract of Malt,
and sound Port Wine.

REPORT ON BEEF WINES.

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. ROBINSON, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.,

Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).
December 15, 1888.

Introduced 1855.]

ROBINSON'S CONCENTRATED WATERS.

[Introduced 1855.]

One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopoeia, and free from all Chemical impurity. They will keep good any length of time in any climate.

Aqua Anethi, Concent., 4/ lb.	Aqua Cinnam. Ver. Concent., 6/ lb.	Aqua Foeniculi, Concent., 4/ lb.	Aqua Pimentæ, Concent., 4/ lb.
" Anisi " 4/ "	" Cassia " 4/ "	" Menth. Pip. " 4/ "	" Rosæ " 8/6 "
" Camphoræ " 4/ "	" Flor. Aurant. " 8/6 "	" " Ang. " 6/ "	" Rosæ Virgin. " 10/6 "
" Carui " 4/ "	" Flor. Sambuci " 8/6 "	" " Virid. " 4/ "	

The above are put up in Bottles of 4 lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over Cork.

From the LANCET, July 15, 1882:—"CONCENTRATED WATERS (Robinson's, Pendleton, Manchester).—Among the samples sent to us we find Aq. Anethi, Anisi, Cinnam. Ver., Rosæ, and some dozen of others. Diluted with forty parts of water they form the ordinary waters of the Pharmacopoeia. They are excellent in quality, and will be very useful, especially in country practice. [1]
Wholesale Agents: HEARON & CO., London, and most Provincial Wholesale Druggists. PREPARED BY THE INVENTOR.
B. ROBINSON, MANUFACTURING CHEMIST, DISTILLER, AND BREWER OF BRITISH WINES, MANCHESTER



ROWNTREE'S

The "MEDICAL PRESS AND CIRCULAR":—

"Certainly this preparation is of delicate flavour . . . It is perfectly soluble . . . the small quantity required for the immediate production of a cup of excellent cocoa will ensure for this 'Elect Extract' a favourable reception at the hands of persons of weak digestion, and all who prefer this wholesome beverage to tea and coffee.

The "BRITISH MEDICAL JOURNAL" says:—

"Rowntree's Cocoa Extract is one of the best. Its flavour and aroma are good. Cocoa thus prepared is one of the most digestible articles of food."

YORK, ENGLAND.

"ELECT" COCOA.

QUARTER & HALF POUND TINS

OF

"ROYAL CHARTER" AND "UPPER CRUST"

TOBACCO

Make most Suitable Presents for Coming Season.

SOLE MANUFACTURERS—

M. & R. PEACOCK, Kingsland Road, London, N.E.

A sample ¼-lb. tin of both the above brands per Parcel Post, on receipt of Postal Order for 3s. 4d.

"MYRTLE GROVE" TOBACCO

In 1-oz., 2-oz., and 4-oz. Packets, and ¼, ½, 1 lb. Tins only.

TADDY & CO., 45 Minories, LONDON

ESTABLISHED 150 YEARS,

SNUFF, TOBACCO, AND SEGAR MANUFACTURERS.



Write for List of Specialities.

LIFE'S RESTORER. MAGGI

FINEST CONSOMMÉ.

LIQUID EXTRACT OF FINEST FRESH BEEF.

AT PARIS EXHIBITION, 1889,

MESSRS. J. MAGGI & CO. WERE DECLARED ABOVE COMPETITION,

And Mr. MAGGI was nominated

MEMBER OF THE AWARDS COMMITTEE.

GOLD MEDAL (Highest Award) INTERNATIONAL FOOD AND COOKERY EXHIBITION, LONDON

A happy thought does not alone constitute a perfect invention; simplicity is needed to make it perfect.

"MAGGI" possesses this quality in a degree that renders it as indispensable in the kitchen as salt and pepper.

"MAGGI" is simply liquid EXTRACT OF BEEF, a teaspoonful of which, added to a cup of hot or cold water, makes at once a perfect BEEF TEA, which anyone, sick or well, will relish.

Two tablespoonfuls to a quart of water (adding Vegetables, &c.) will make a better Soup or Potage than hours spent over the fire.

The improvement in the quality of Gravies, Ragoûts, Stews, Hashes, Roasts, &c., by the addition of a few drops of "MAGGI," is amazing.

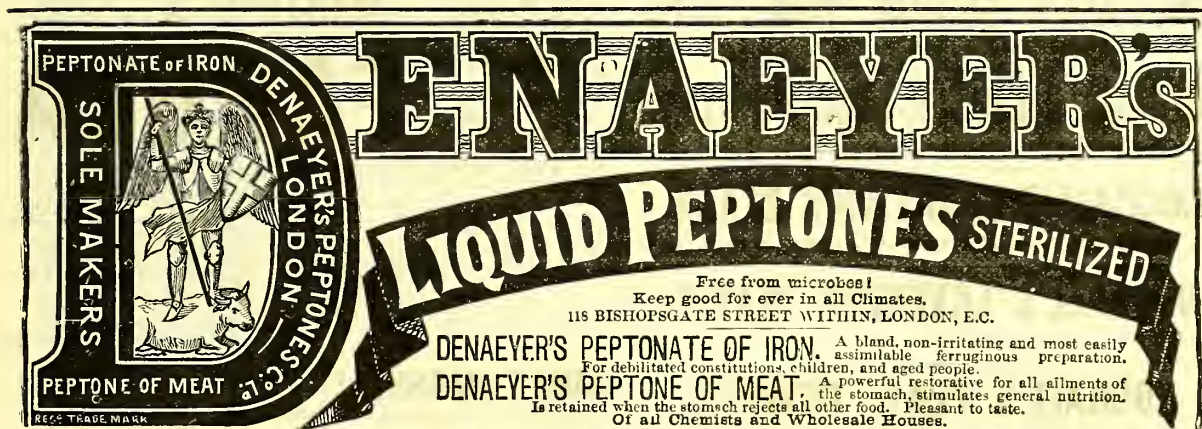
Unlike all other Extracts of Meat, "MAGGI" is most delicious, does not need the addition of salt and pepper, can be used by the most inexperienced, produces as good a Consommé or perfect Clear Soup as any first-class cook can prepare by the most elaborate and expensive means, and keeps good in any climate.

Soup Stock is now rendered unnecessary, as "MAGGI" is better, cheaper, and more nutritious for the sick, convalescent, and healthy.

In 2-oz., 1-lb., & 2-lb. Bottles, of all Grocers & Druggists throughout the world.

WHOLESALE AGENTS—

**E. LAZENBY & SON,
SAMUEL HANSON, SON & BARTER,
W. & D. HARVEST,
AND
CROSSE & BLACKWELL.**



DENAYER'S

LIQUID PEPTONES STERILIZED

Free from microbes!
Keep good for ever in all climates.
115 BISHOPSGATE STREET WITHIN, LONDON, E.C.

DENAYER'S PEPTONATE OF IRON. A bland, non-irritating and most easily assimilated ferruginous preparation. For debilitated constitutions, children, and aged people.

DENAYER'S PEPTONE OF MEAT. A powerful restorative for all ailments of the stomach, stimulates general nutrition. Is retained when the stomach rejects all other food. Pleasant to taste. Of all Chemists and Wholesale Houses.

OUR JUJUBE DEPARTMENT

IS REPLETE WITH PLANT OF THE LATEST DESIGN FOR THE

MANUFACTURE OF JUJUBES AND PASTILLES.

Our goods are sought after because—

They are *bright*, they do not run together, the *flavours* are excellent, they are made of pure gum, contain no gelatine, and because the public are asking for them.

Our prices bear comparison with any house in the trade.

T. BAGE BLYTON & CO., GORDON STREET, LOWER BROUGHTON, MANCHESTER.

EIGHT PRIZE MEDALS AWARDED

GOODALL'S HOUSEHOLD SPECIALITIES.

YORKSHIRE RELISH.

Most Delicious Sauce in the World. Bottles, 6d., 1s., and 2s. each

GOODALL'S BAKING POWDER.

The Best in the World. 1d. Packets; 6d., 1s., 2s. and 5s. Tins.

GOODALL'S EGG POWDER.

One 6d. Tin is equal to 25 eggs. In 1d. Packets; 6d., 1s. and 5s. Tins.

GOODALL'S CUSTARD POWDER.

Delicious Custards without Eggs. In Boxes, 2d., 6d., and 1s. each

GOODALL'S BLANCMANGE POWDER

Delicious Blanmange in a Few Minutes. Boxes, 6d. and 1s. each.

GOODALL'S QUININE WINE, B.P.

Best Tonic yet Introduced. Bottles, 6d., 1s. and 2s. each.

GOODALL'S GINGER-BEER POWDER.

Makes the Best Ginger-Beer. Packets, 3d. and 6d.

GOODALL'S BRUNSWICK BLACK,

or Painting Stoves, Grates, Iron, Tin, &c. 6d. and 1s. Bottles

GOODALL'S LAVENDER WATER.

A Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each

GOODALL'S PLATE POWDER,

For Polishing and Cleaning all Metals. Boxes, 6d., 1s. and

GOODALL'S JELLY SQUARES.

Make a Delicious and Nutritious Jelly. In $\frac{1}{2}$ - and 1-pint boxes, 3d. and 6d. each.

PROPRIETORS—GOODALL, BACKHOUSE & CO., LEEDS.

PATENT MEDICINES AND

DRUGGISTS' SUNDRIES.

Monthly Price List of Patent Medicines, Druggists' Sundries, &c., will be sent post free on application to

GOODALL, BACKHOUSE & CO., LEEDS.

NATURAL ARSENICAL CHALYBEATE MINERAL WATERS

Levico

SOUTH TYROL

They are prescribed in the Treatment of SKIN DISEASES, MENSTRUAL DISORDERS, CHLOROSIS, ANEMIA, SCROFULOUS DIATHESIS, SYPHILIS, and NERVOUS AFFECTIONS of all kinds.

Dose.—One tablespoonful three times a day, mixed with Wine, Seltzer, &c

Price per dozen Bottles, 12/ net.

" 100 " 86/ "

Delivered free on Rail London,

Agency—**LEVICO SPRINGS CO., LIM.**

24 COLEMAN STREET, LONDON, E.C

CHEMISTS' TEA AGENCY.

WALKER & DALRYMPLE'S

BROKEN-LEAF TEA, 1s. 8d. per lb.

▲ MONEY SAVING TEA. ABSOLUTELY PURE.

The small leaf from some of the finest India and China Teas. Produces a Tea in the cup, stronger, richer, and cheaper than most whole-leaf Teas. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S

INTERMEDIATE TEA, 2s. per lb.

BEST at the PRICE EVER SOLD. Great strength and a most useful Tea where there is a large consumption. Recommended to all who wish to SAVE in their Tea. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S TEAS.—

AGENTS APPOINTED, where unrepresented, throughout the United Kingdom.

Prospectus and Samples Free on Application.

Warehouses, 154, 155, 159 and 160 WHITECHAPEL ROAD, and 2, 4, 6, 8, 10, 11, and 12 BRADY STREET, LONDON.

P.O.O. payable at head office. Bankers, the National Provincial Bank of England.



MARSHALL'S TWICE AWARDED GOLD MEDALS

FAROLA

AND OTHER PREPARATIONS OF WHEAT.

These Wholesale Houses supply the Goods at List Prices.

BARCLAY & Sons, Lim., 95 Farringdon St., E.O.
R. HOVENDEN & Sons, 33 Berners Street, Oxford Street, W., and 95 City Road, E.O.
MAY, ROBERTS & Co., 9 Clerkenwell Road, E.C.
F. NEWBERY & Sons, 1 King Edward Street, E.O.
J. SANGER & Sons, 489 Oxford Street.

DEPOT AGENCIES—

BUCKNALL & INGLETON, Bristol.
JOHN POLLOCK, 12 Heslingden St., Manchester.
DOWNER, THOMPSON & Co., Belfast.

JAMES MARSHALL, 24 Pimlico Road, S.W.
22 Adelphi Terrace, Glasgow

ROBINSON & WORDSWORTH,
MANUFACTURERS OF

**Genuine
Liquorice
Cakes.**

Our Goods are of the highest quality, and are noted for their purity and flavour.

Registered Copyright Novelties,
AND A LARGE VARIETY OF
LIQUORICE CONFECTIONERY.

VICTORIA WORKS, PONTEFRAC.

APPOINTMENT of AGENTS UNITED KINGDOM TEA COMPANY, LIMITED.

The Directors are entertaining applications for the Agency for the Sale of the Company's Teas. A liberal Commission will be allowed. The appointments will be found to be most valuable, entailing little, if any, trouble, in addition to which, from the very extensive nature of the Company's advertising in all the principal newspapers and periodicals throughout the country, the appointment will be the means of bringing large numbers of customers to the Agent, who, when buying the Teas, will at the same time purchase other articles.

About 1,200 Agents have already been appointed; it has been decided to increase this number, until in every Town and Village in the Kingdom there is an Agent of the Company.

Offices—21 MINCING LANE, LONDON, E.C.

DUTY-PAID STORES—

IMPERIAL WAREHOUSE, LEMAN ST., LONDON DOCKS.

TYRER'S SAUCES AND "BOROUGH" KETCHUP

8000
VALUE

THE GIANT 1d. BOTTLE OF SAUCE.
LARGEST IN THE TRADE.

In Half-Gross Boxes, at 6/6 per Gross.

"BOROUGH" KETCHUP, WORCESTER, HARVEY, YORKSHIRE,
OR READING SAUCE.

1d. Sample Bottles, dozen parcels	--	--	per gross 5/	extra quality 8/
1d. " " " " " "	--	--	" 5/6	" 8/
1d. Giant Bottles, dozen parcels	--	--	" 6/	" 8/
1d. " " " " " "	--	--	" 6/6	" 8/
1d. Bottles (flat or round), reputed 1-pint	--	--	" 18/	" 24/
1d. Bottles (flat or round), reputed pint	--	--	" 28/	" 32/
1d. pint Imperial Round Stoppered Bottles	--	--	" 30/	" 38/
1d. pint Imperial	--	--	" 50/	" 50/
12 1/2-gallon Casks (casks free) ..	--	--	each 20/	" 22/

ROYAL CAFÉ SAUCE.

In 8-oz. square-stoppered bottles, 48/ per gross.

A rich, fruity Sauce of fine flavour, and worth especial attention, as being the most saleable in the market.

Samples of any kind Sent Free of all Cost by

PETER TYRER,

The "Borough" Ketchup and Sauce Maker,

70 LONG LANE, BOROUGH, LONDON, S.E.

SCOTCH AGENCY WEST NILE STREET, GLASGOW.
Also Sold by W. & C. PANTIN, Upper Thames Street, LONDON, E.C.
BURGOYNE & CO., 16 Coleman Street, London, E.C.
JOSEPH TRAVERS & SONS, 119 Cannon Street, London, E.C.

BOVRIL

IN THE "LANCET" OF NOVEMBER 11, 1885
BARON LIEBIG SAYS:—

"Were it possible to furnish the market at a reasonable price with a preparation of meat, combining in itself the albuminous together with the extractive principles, such a preparation would have to be preferred to the Extractum Carnis, for it would contain all the nutritive constituents of meat." Again—"I have before stated that in preparing the Extract of Meat, the Albuminous principles remain in the residue, they are lost to nutrition, and this is certainly a great disadvantage."

"BOVRIL" contains the albumin and fibrine in the most perfect possible form, and to those who know the requirements of the human system and the constituents of food, it will be apparent that this albumin and fibrine is identical with what the body requires for recuperation, and that as a perfect form of concentrated nourishment it must supersede any animal aliment at present known.

"BOVRIL" has solved the problem of the great German Chemist.
"BOVRIL" is Baron Liebig's ideal realised.

OFFICES:—30 Farringdon Street, LONDON.

MILLAR'S BRITISH WINES.

ORANGE (suitable for Quinine), GINGER, RAISIN, COWSLIP, CHERRY, &c.

A. MILLAR & CO., Thomas Street, DUBLIN.

Sole Agents for London and District—H. J. ROYDANT & CO., 75 Acre Lane, Brixton, S.W.

"RAMORNIÉ." LIEBIG'S Extract of Meat.

As supplied to the War and India Offices.

1-lb. Jars.....per lb.	6/2	.....per doz.	74/0	2-oz. Jars.....per lb.	7/0	.....per doz.	10/6
1-lb. Jars....."	6/4	....."	88/0	1-oz. Jars....."	7/8	....."	5/9
4-oz. Jars....."	6/7	....."	18/9	1-oz. Jars....."	8/0	....."	3/0

QUOTATIONS FOR EXTRACT IN "BULK" ON APPLICATION
Write for Detailed Price List to the Australian Meat Co., 9 and 11 Fenchurch Avenue, E.C.

6 lbs. Carriage Free.

DRUGGISTS' CONFECTIONERY.

ROBERT GIBSON & SONS,

Medicated Lozenge Manufacturers,

CARLTON WORKS, ERSKINE STREET, HULME, MANCHESTER,

1 Australian Avenue, London, and 44 Alter Wall, Hamburg.

GIBSON'S SUPERIOR

BOILED SUGARS

Have gained a High Reputation everywhere. **FOR EXPORT TRADE.** They are put up in 1-lb., 2-lb., and 5-lb. Bottles. Packed in Casks or in 1-doz. Cases as required, and delivered F.O.B. at any Port in England. These Sweets are absolutely pure. We specially recommend

Lime Fruit Tablets, Everton Toffy, Mixed Fruit Drops, Cough Drops, Raspberry Drops, Lemon Tablets.

CACHOU PEARLS,

Musk, Rose, Mint, and other Flavours. In 1-lb. White Glass Bottles. Bottles free

COMPRESSED CHLORATE OF POTASH PELLETS, SACCHARINE PELLETS,

And PELLETS of every description, put up in 1-lb. White Flint Glass Bottles, with Boxwood Top Corks. Bottles not Charged.

HIGH-CLASS LOZENGES

OF EVERY DESCRIPTION.

Chlorodyne Cough Lozenges, Chlorodyne Jujubes, Peppermint Lozenges,

In every variety of size and strength. Curiously Strong, and Multum in Parvo Mints give the utmost satisfaction Medicated Lozenges of Pharmacopœia Strength.

DIGESTIVE TABLETS. VOICE AND THROAT LOZENGES for Singers and Public Speakers.

ORIGINAL SUGAR WORM CAKES

Have an immense sale, both at home and abroad; will keep in any climate, and give entire satisfaction. Put up in Tins containing 3 doz., 6 doz., and 12 doz. cakes.

THROAT HOSPITAL LOZENGES

(As per T. H. Pharmacopœia).

All Lozenges are sent out in 2-lb. and 4-lb. Bottles (*bottles free*), but allowed for if returned.

PROPRIETARY LOZENGES CAREFULLY PREPARED, STAMPED, AND CUT TO ANY SIZE OR SHAPE.

PRICE LISTS SENT ON APPLICATION.

E. C. RICH COMPANY, Limited, Agents, United States,

AND

Mr. THOS. LAKEMAN, 34 Pitt Street, Sydney, for Australia.

Telephone Number, 1852.

Telegraphic Address—CHEMICUS LONDON.

ADVERTISERS' AND BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS

ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."

NOTE.—The Folios shown in this Index are those at the FOOT of the Page, and not at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

Foot of Page	Foot of Page	Foot of Page	Foot of Page
Aire & Calder Glass Bottle Co. 57	Dec Oil Co. (Lim.) 52	Kay Bros. (Lim.) 36	Rookledge, J. 61
Allen & Hanburys <i>Front Cover</i>	Dehaeyer's Peptone Co. 25	Kemp, W. H. 44	Rouse & Co. 830
Alofas, The Co. 64	Downie B. I. P. Co. 42	Kent, G. B., & Sons 54	Rowntree & Co. 24
Anderson & Adams 16	Duckworth & Co. 23	Knight & Co. 48	Royal (Dick) Veterinary College 16
Andraee, Oscar, & Co. 44	Dukes, B. 14	Lalor, Dr. 44	Sainsbury, S. 64
Anglo-American Oil Co. (Lim.) 63	Dunn & Co. 36	Laying, R. C. 64	Sanders, H. G., & Son 50
Apollinaris Co. 18 <i>Text</i> 830	Durrant, G. R. 64	Leo & Co. 44	Sanford & Son 64
<i>Outside Cover</i>	Eade's Gout Pills 42	Levermore, Aug., & Co. 64	Sanitas, The Co. (Lim.) <i>Text</i> 830
Assistants Wanted	Edwards & Co. 50	Levico Springs Co. (Lim.) 26	School of Pharmacy 14
<i>Coloured Supplement</i>	Elliman, Sons & Co. <i>Text</i> 830	Liebig Co. 31	Seabury & Johnson 52, 54
Australian Meat Co. 27	Ellis & Son 22	Lincoln Drug Co. 40	Shirley, A. W. 5, 49
Baelz, R., & Co. 41	Employers' Liability Assurance Corporation 16	Liverpool Lint Co. 8	Silicated Carbon Filter Co. 20
Baker, J., & Sons 56	Epps, J., & Co. 68	Lofthouse & Saltmer 41	<i>Text</i> 830
Barnett & Foster <i>Outside Cover</i>	Eschmann Bros. & Walsh 50	London Homoeopathic Hospital and Medical School 14	Silverlock, H. 15
Barrett, R. H. 58	Evans, Lescher & Webb 32	Lüneburger Wax Bleaching Works 64	Smith, Sam. 42
Barron, Harveys & Co. 40	Evans, Sons & Co. 32	Lynch & Co. <i>Cover</i>	Smith, T. J. 42
Bewlay & Co. 22	Evans and Sons (Lim.) 32	"Maggi" 26	Soden Mineral Produce Co. (Lim.) 38
Billault, M. 42	Exchange Column 12	Marshall, J. 26	Southwell, Chas., & Co. 22
Blake & Mackenzie 16	Favarger & Co. 18	Maw, S., Son & Thompson 9, 53	Spon, E. & F. N. 14
Blondeau & Co. 11	Fearnings, Alfred <i>Outside Cover</i>	Mawson, Swan & Weddell 55	Steedman, J. 46
Blyton, Bage & Co. 25	Fitzsimmons & Fearnley 19	May & Baker <i>Cover</i>	Stephen, Smith & Co. 62
Boehring & Soehne 43	Fletcher, Fletcher & Stevenson <i>Text</i> 830	May, Roberts & Co. 38	Stern, G. & G. 7
Bovill (Lim.) 27	Ford, Shapland & Co. 15	Melin, C. 58	Stevenson & Howell 3
Bowdlear, W. H., & Co. 62	Fox, W., & Sons 36	Miller, A., & Co. 27	Stokes, G. R., & Co. (Lim.) 56
Bowers Bros. 16	Fuerst Bros. 41	Mills, R. M., & Co. 18	Taddy & Co. 24
Bratby & Hinchliffe 17	Geelkerken & Co. 61	Möller, P. 42	Toogood, W. 59
Breffits, E., & Co. 57	Gibson, R., & Sons 23	Mouilla Liquid Soap Co. 64	Towle, E. T. 40
Brett, F. J. <i>Coloured Supplement</i>	Godfrey & Cooke 16	Mumford, G. S. <i>Text</i> 830	Townsend, J. 16
Brodie, J. 46	Goodall, Backhouse & Co. 26	Murray, Sir James, & Son 38	Treble, G., & Co. 60
Brunner, Mond & Co. 37, 34	<i>Coloured Supplement</i>	Noakes, E., & Co. <i>Text</i> 830	Truefitt, H. P. (Lim.) 47
Burroughs, Wellcome & Co. 33, 34	Hamilton & Co. 61	Oakey & Sons 65	Tucker, J., & Co. 42
<i>Front Cover</i>	Harris, P., & Co. 35	Oppenheimer Bros. & Co. 41	Tyler, Hayward, & Co. 18
Businesses for Disposal	Hargreaves, Dr., M.D. 14	Orridge & Co. <i>Coloured Supplement</i> 47	Tyrer, P. 27, 48
<i>Coloured Supplement</i>	Hay, W. 20	Osborne, Bauer & Chaceman 47	United Kingdom Tea Co. 27
Cadburys Bros. <i>Cover</i>	Haynes, G., & Co. 64	Owen, John, Jun. 65	Vaccine Association 52
Carter, J. H. 58	Hearn, E. A., & Co. 60	Peacock, M. & R. 24	Violet 50
Central School of Chemistry and Pharmacy 14	Heaton, Squire & Francis 4	Pearson, M. & R. 24	Vogt, G., & Co. 50
Chalmers, W. B. 65	Henry, T., & W., & Co. 65	Pearson's Soap 51	Walker & Dalrymple 26
Chassing & Co. 35	Hickison, J. 35	Petersen, P. J., & Co. 32	Walker, Troke & Co. 61
Cheshbrough Manufacturing Co. 34	Hockin, Wilson & Co. 10	Phillips, G., & Co. 60	Warner, H. & H., & Co. 6
Chiswick Soap Co. <i>Front Cover</i>	Holroyd, J., & Co. (Lim.) 56	Pontifex & Wood 60	Watson & Wates 65
City School of Chemistry and Pharmacy 14	Hopgood & Co. 46	Poths, H., & Co. 35	Wedgwood, J., & Sons 60
Clark, S., & Co. 56	Horn & Son 18	Potter & Clarke 22	Werner & Pfeiderer 58
Colthurst & Harding 62	Hungarian Aperiient Water 14	Powell, E. A., & Co. 45	West, T. 43
Cook, L., & Co. 46	Hunt, W. F., & Co. 60	Price's Candle Co. (Lim.) 47	Westminster College of Chemistry 14
Cooper & Co. 52	Hyde, Nash & Co. 64	Prudden & Dubost 22	Wilkinson & Sons 61
Corsan, J. R. 60	Idris & Co. 21	Quilliam, J., & Co. 64	Wood, Vincent 54
Crouch, F. B. 42	Isaacs, I., & Co. 60	Raines & Co. 40	Woods, W. M. 46
Cubley & Preston <i>Col. Supp.</i>	Johnson & Johnson 13	Rankin & Sons 46	Woolley, Sons & Co. 34
Cummock, J. 23		Redmond's Stomach Wash 64	Wright, Layman & Umney <i>Text</i> 830
		Robinson, B. 24	Wyleys & Co. 39
		Robinson & Sons 54	Young, H. 62
		Robinson & Wordsworth 23	

CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear above are published in one of the other issues of this month.

AERTD & MINRELS

Apollinaris (Hungarian Aperiient Water, Diamond Mark, Friedrichshall Apollinaris)
Barnett and Foster
Osley Abbey Mineral Water Chemists' Aerated Waters Association.
Davis, R.
Ellis (Ruthin)
Hassall and Co. (Olitric Acid Phospho)
Hay, W.
Idris and Co.
Jewsbury and Brown
Levico Springs Co. (Limited)
Mills and Co. (Bourne)
Taylor, T. and F. J.
[See GINGER ALE.]

BITTO PLANT

[See SPRINGS and ESSENCES.]
Barnett and Foster
Bratby and Hinchliffe (Ld.)
Favarger, H.
Fevre, T.
Gneret Frères
Tyler, Hayward, and Co.

ACETIC ACID

Dunn and Co.
Fuerst Bros.
Morris and Callard (Salts)

ALKALOIDS

Howards and Sons (Olinchona)
Smith, T. and H.

ALMANACKS

Blake and Mackenzie
Davis, J., and Co., Lim.
Silverlock, H.
Townsend, J.

AGNCIES ABROAD

Acard, Ed.
Australasian Drug Co.
Cocking and Co. (Japan)
Felton, Grimwade and Co. (Melbourne)
Fougera and Co. (New York)
Kempthorne, Prosser & Co. N.Z.
Lennon, B. G., and Co.
Levy, Jules
Peake, Allen and Co.
Petersen, P. J., and Co.
Prosser, Taylor and Co.
Rich, E. C. Co.
Roberts (Paris, &c.)
Bocke, Tompsitt and Co. (Melbourne)
Soul, W. H., and Co.

AMMONIA

May and Baker
White, A., and Sons
Woolley, Sons and Co.

APPARATUS

Becker, F. E., and Co. (Scientific)
Clarke, S. (Food Warmer and Bed Tray)
Fuerst Nickel Manufacturing Co.
Orme (Scientific)
Perken, Son and Rayment
Tebbutt, F.
Wedgwood & Sons (Mortars)

BANDAGES

Bailey, W. H., and Son
Robinson and Sons
Seabury and Johnson

BAKING POWDER

Dunn, W. G., and Co.
Goodall, Backhouse & Co.

BEESWAX

Bowdlear, W. H., and Co.
Lüneburger Wax Bleaching Works

BICARB. SODA

Brunner, Mond and Co., Lim.
Howards and Sons
May and Baker

BISMUTH. PREP.

Heaton, Squire and Francis
Lewlett and Sons
Howards and Sons
May and Baker
Symes and Co.
White, Alfred, and Sons

BLOOD MIXTURE

Lincoln and Midland Counties Drug Co.

BOOKS

Davis, J.
Gurney and Jackson
Hargreaves, Dr.
Longmans, Green and Co.
Spon, E. & F. N.
Whitla, W. M.D.

BOTANIC BEER

Newball and Mason

BRUSHES

Dukas and Co.
Fordham, W. B., and Sons
Kent, G. B., and Sons
Moseley, David, and Sons

BOTTLE CAPPING CAPSULES

Beach, J., and Sons
Hunt, W. F., and Co.

BOTTLES

Aire and Calder Bottle Co. (Ld.)
Barnett and Foster
Barrett, R. H.
Bratby and Hinchliffe (Ld.)
Breffits (Lim.)
Evans, Sons and Co.
Gilbertson, H., and Sons
Hearn, E. A., and Co.
Hunt, W. F. (Caps)
Isaacs and Co.
Kilner Bros.
Maw, Son and Thompson
Melin, C. (Stoppers)
Poths, H., and Co.
Sanders, H. G., and Son
Shirley, A. W.
Toogood, W.
Youldon, E.

BOXES

Austin and Co. (Cardboard)
Ayrton and Saunders
Chalmers, W. B.
Noakes, B., and Co.
Owen, J., Jr.
Parmenter, I. W. & Co. Lim.
Robinson and Sons
Self Opening Tin Box Co.

BUTTER COL. &c.

Johnsen and Jørgensen
Oldfield, Pattinson and Co.

CAMPHOR

Fuerst Bros.
Howards and Sons
Keene and Ashwell (Homoeo)
May and Baker [pathic]

CAPSULES

Denoual, J. (Medicinal)
Duncan, Flockhart and Co.
Evans, Sons and Co.
Hooper, B., and Co.
Maw, S., Son and Thompson
Robertson, J., and Co.

CAPSULES (METALLIC)

Betts and Co.
Brooks, Peel and Co.
Melin, O. (Machine)
Sanders, H. G., and Son

CAREMEL

Lichtenstein and Co.

CSORA SAGRADA

Duncan, Flockhart and Co.
Evans, Sons and Co.
Ferris and Co.
Moss, J., and Co.
Squire and Sons

CASTOR OIL

Fuerst Bros.

CATALOGUE

Evans, Sons and Co.
Maw, Son and Thompson
May, Roberts and Co.
Sanger and Son
Schutze, F., and Co.

CEMENT

Kay Bros., Lim.
Mumford, R.
Dunn and Co.
Levermore, Aug., and Co.
White, A., and Sons

CHALK PRINCIP.

CHEMICALS

Andreas, Oscar and Co.
Boehringer, C. F., and Sohne
Benzell and Son
Brunner, Mond and Co., Lim.
Bush, W., Son and Co.
Dunn and Co.
Fletcher Fletcher and Stevenson
Fuerst Brothers
Goodall, Backhouse and Co.
Hill, A. S., and Son
Howards and Son (Pharm.)
Kuhn, R.
Levermore, Aug., and Co.
Lothhouse and Saltmer
Lorenz, H.
May and Baker
Morris and Callard
Moss and Co.
Prunk, Davis and Co.
Stern, G. and G. (Pumilins)
Smith, T. and H., and Co.
Tyrke and King
Warrick Brothers
Zimmermann, A. and M.

CHEST PROTECTORS

Bailey, W. H., and Son
Evans, Sons and Co.
Hockin, Wilson and Co.
Liverpool Lint Co.
Lynch and Co.
Maw, Son & Thompson, S.
Pattison, G.
Sanger and Sons
Schutze, F., and Co.
Thompson, Walters, Hole and Co. (Limited)
Wood, Vincent

CHLORIDE OF GOLD

Rowland, L.

CHL. OF POTASH

Burroughs, Wellcome and Co.
Hooper, B., and Co.

CHLORIDE OF LIME

Government Sanitary Co.
National Chemical Co.

CHLORODYNE

Davenport (Browne's)
Twile, A. F., and Son

CHLOROFORM, &c.

Duncan, Flockhart and Co.
Macfarlan, J. F., and Son
Smith, T. and H., and Co.
Wright, Layman and Umney
Zimmermann, A., and Son

CITRIC ACID

Hassall's (Phospho)

COCAINE-HYDRO

Boehringer, C. F., and Sohne
Howards and Son

COCA WINE

Armbricht, Nelson and Co.
Evans, Sons and Co.
French Hygienic Soc.

COCOA & CHOCOLATE

Cadbury Bros
Fry and Sons
Rowntree and Co.
Scheibler Bros. and Co.
Van Houten's Cocoa

COD LIVER OIL

Allen and Hanburys
Breake and Howland
Burroughs, Wellcome and Co.
Evans, Sons and Co.
Hill, A. S., and Son
Lofodden Cod Liver Oil Co.
Moller, P.
Lothhouse and Saltmer
Oppenheimer Bros. and Co.
Smith, T. J.
Woolley, Sons and Co.
Wright, Layman and Umney

COFFEE

Syrington and Co. (Coffee Essence)

GOLDSIELE TUBES

Betts and Co.
Brooks, Peel and Co.
Sanders, H. G., & Son

COMP. MEDICINES

Allen and Hanburys
Blyton, T. Bage, and Co.
Burroughs, Wellcome and Co.
Fuerst Bros.
Hooper, B., and Co.
Leo and Co.
Weyles and Co.

CONFECTIONERY

Blyton, T. Bage, and Co.
Gibson, E., and Sons
Kerfoot, T.
Pascall, J.
Warrick Brothers

CONCENT. LIQS.

Evans, Sons and Co.
Fletcher, Fletcher & Stevenson

CORN CURES

Maw, Son and Thompson, S.
Seabury & Johnson (Plasters)
Thompson, M. F.
Young, H.

COTTON WOOL

Haynes, G., & Co. (Absorbent)
Robinson and Sons (Absorbent)
Sanger, J., and Sons
Seabury and Johnson

ORSED LINSSEED

Mumford, G. S.

DISINTEGRATORS

Carter, J. H.

DOG MEDICINES

Spratts (Patent)

DENTIFRICES

Fendiman & Co.
Jewsbury and Brown
Kennedy, The, Co.
Maw, Son and Thompson, S.
Newbery and Sons
Reeb, H.
Sutton, O., and Co.
Thompson and Capper
Warrick Bros.
Woods, W. (Arecia Nut)
Wright, C., and Co.

DISINFECTANTS

Government Sanitary Co.
Hamilton and Co.
Royal Sanitary Compounds
National Chemical Co.
Seabury and Johnson
Sanitas Co.

DRUGGISTS' SUP.

Ayrton and Saunders
Bailey, M., and Co.
Barclay and Sons (Limited)
Evans, Lescher and Webb
Evans, Sons and Co. (Savars)
Gilbertson, H., and Sons
Hill, A. S., and Son
Hockin, Wilson and Co.
Iaris and Co.
Jessop, L. H., and Co.
Key Bros., Lim.
Lynch and Co.
Marriot, E., and Co.
Maw, Son and Thompson, S.
May, Roberts and Co.
Rankin and Sons (Cork Mats)
Sanger and Sons
Schutze and Co.
Thompson, Walters, Hole & Co.
Toogood, W.
Wood, Vincent

DRUMS, CANS, &c.

Noakes and Co.

DYES

Prunk, Davis and Co.

EAU DE COLOGNE

Farina, J. M.
Mann, C. A., and Co.
Shirley, A. W.

ELECTRIC APPAR.

Berry, F. H.
Dartford, F., and Co.
Gent and Co.
Orme and Co.

EMBOCATION

Clark, W.
Elliman, Sons and Co.

ENAMEL

Fordham, W. B., and Sons

ENEMAS

Bailey, W. H., and Son
Ingram and Son
Lynch and Co.
Maw, Son and Thompson, S.
Sanger and Son
Schutze, F., and Co.

ENGRAVERS

Barker, W., and Son
Corran, J. R. (Glass)

ESSENTIAL OILS

Bush, W., Son and Co.
Cooking (Japan Peppermint)
Cummock, J.
Duckworth and Co.
Evans, Sons and Co.
Haensel, Heinrich
May and Baker
Poppelreuter, Wm.
Stevenson and Howell
Symes and Co.
Trent, E. C.
Warrick Brothers
Wright, Layman and Umney
Vogt, G., and Co.

ESSENCES

Beckett, W.
Braby and Hinchliffe (Ld.)
Burgoyne, Burbridges and Co.
Bush, W. J., and Co.
Cummock, J.
Duckworth and Co.
Goodall, Backhouse and Co.
Hay, W.
Idris and Co.
May and Baker
Oldfield, Pattinson and Co.
Stevenson and Howell
Tyner, P. (Anchovies)
Woolley, Sons and Co.

ETHER

Duncan, Flockhart and Co.
Howards and Son
May and Baker
Robbins
White, A., and Sons
Woolley, Sons and Co.
Wright, Layman and Umney

EUCALYPTUS

Downie B. I. P. Co.
Tucker, J., and Co.

EXTRACTS, FLUID

Allen and Hanburys
Barber, G., and Co.
Burgoyne, Burbridges and Co.
Evans, Sons and Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire and Francis
Hooper, B., and Co.
Moss and Co.
Oldfield, Pattinson and Co.
Potter and Clarke
Wright, Layman and Umney

EXTRACT, MEAT

Australian Meat Co.
Bovril (Limited)
Brand and Co.
Denaeyer's Peptons Co.

De la Vie Co.
"Maggi"

FEEDING BOTTLES

Briffits, E. and Co., Lim.
Evans, Sons and Co.
Hearn, E. A., and Co.
Hockin, Wilson and Co.
Kilner Bros.
Maw, Son and Thompson, S.
Marriot, E., and Co.
May, Roberts and Co.
Thompson, Walters, Hole and Co. (Limited)
Toogood, W.

FLY PAPERS

Ford, Shapland and Co.

FILTERING

Andrews, R. W.
Doulton and Co.
Lipscombe and Co.
Mawson, Swan and Weddell
Silicaeud Carbon Filter Co.

FOOD (Infants' & Invalids')

Allen and Hanburys
Baelz, R., and Co.
Bovril (Limited)
Brand and Co.
Bragg, J. L. (Charcol Biscuits)
Dahl's Dyspepsia Cakes
Goodall, Backhouse and Co.
Hearon, Squire (Malted)
King, F., and Co., Lim.
Liebig Co.
"Maggi"
Marshall, J.
Mottershead & Co. (Benger's Food)
Nestle, H.

FORMULE

Brooks, T.

GINGER ALE

Hay, W. (Essence)
Mills, E. M., and Co.

GLYCERINE

Pink and Co.
Fuerst Bros.
Price's Candle Co.
Van Geelkerken and Co.

GRANULAR PREP.

Curtis and Co.
Evans, Sons and Co.
Hearon, Squire and Francis
Hockin, Wilson & Co.
Kerfoot, T.
Wright, Layman and Umney

GUM

Pink (Arabic, &c.)
Hyde, Nash and Co.
Knight and Co.
Levermore Aug., and Co.
Prunk, Davis and Co.

GUTTAPERCHA

Duncan, Flockhart and Co.

HAIR PREP.

Bates, F. W.
Brodie, J. (Imperial Hair Dye)
Chesbrough Mfg. Co.
Edwards and Co.
Truefitt, H. P. (Limited)

HERB BEER EXTS

Newball and Mason
Oldfield, Pattinson and Co.
Potter and Clarke

HERBALISTS

Bentley, McCulloch and Co.
Newball and Mason (Extract of Herbs)
Potter and Clarke (Extract of Herbs)
Wilkinson, A., and Sons (Compressed Hops)

HOMOPATHIC

Eppe, J., and Co.
Gould, E. and Son
Keene and Ashwell
Leath and Ross
Thompson and Capper
Watson and Wates

HOPS

Wilkinson, A., and Sons

HOP ALE ESSENCE

Hay, W.

HYPOPHOSPHITES

Duncan, Flockhart and Co.
Dunn and Co.
Fletcher, Fletcher and Co.
Symes and Co.
Tyke and King

HOSPITALS

Boltonbroke House
London Homoeopathic

INHALERS

Anderson and Adams
Evans Sons and Co.
Godfrey and Cooke
Hockin, Wilson and Co.
Maw, Son and Thompson, S.
Mawson, E., and Co.
Toogood, W.

INSECTICIDES

Maw, Son and Thompson, S.
Sandford
Steiner and Co.
Vogt, G., and Co.

INK [See MARKING]

Bewley and Draper
Duncan, Flockhart and Co.

JELLIES (TABLE)

Southwell, C., and Co.

KETCHUP

Tyner, P.

LAMPS

The Wenham Co. (Limited)

LARD

Ewen J.

LEECES

Fitch and Nottingham
Potter and Clarke

LIME JUICE

Evans, Sons and Co.
Idris and Co.

LINT

Liverpool Lint Co.
Maw, Son and Thompson, S.
Newsome, C.
Robinson and Sons
Seabury and Johnson

LIQUORICE

Robinson and Wordsworth

LOZENGES

Allen and Hanburys
Blyton, T. Bage, and Co.
Gibson, E., and Sons (Manila)
Hill, A. S., and Son
Kerfoot, T.
Martindale, W.
Pascall, J.
Raines and Son
Randall and Son
Warrick Bros.

MACHINERY

Beyer Freres.
Burroughs, Wellcome and Co.
Carter, J. H.
Goodall, E. F.
Holroyd & Co. (Limited)
McFerran, J. A.
Molin, C. (Cauling)
Pontifex and Wood
Werner and Pfleiderer

MAGNESIA

Andreas, Oscar, and Co.
Brash, W., Son and Co.
Dinneford
Henry, T. and W. (Calced)
Hill and Sons, A. S.
Kerfoot, T. (Grits)
Murray, Sir James, and Son

MALT EXTRACT, &c.

Baelz, R., and Co.
Burroughs, Wellcome and Co. (Kerfoot's)
Hearon, Squire and Francis
Hockin, Wilson & Co.
Oppenheimer Bros. and Co.
Pure Malt Extract Co.

MARKING INKS

Barber, G., and Co. (Crimson)
Hickinson, J.

MEDICINE CHESTS

Day, Son and Hewitt (Veterinary)
Day and Sons (Veterinary)

MENTHOL

Al Menthol Depot, A. W.
Shirley, Proprietor
Cocking and Co.
Hockin, Wilson and Co.
Maw, Son and Thompson, S.
Shirley, A. W.

MERCURIALS

Fuerst Brothers
Howards and Sons
May and Baker

METHYLATED**SPIRITS**

Burroughs, J.
Harvey, J. W., and Co.
Jones and Co.
Phillips, G., and Co.

METHYLENE

Robbins, J., and Co.

MICROSCOPES

Dartford, F., and Co.
Perken, Son and Rayment

MILK

Nestle, H. (Condensed)

MIXING**MACHINERY**

Bracher and Co.
Carter, J. H.
Werner and Pfleiderer

MORPHIA

Macfarlan, J. F., and Co.
Smith, T. and H.

MUSTARD

Johnson, J. H. and S. (Ess. Oil)

OILS, PAINTS, &c.

Anglo-American Oil Co. (Lim.)
Cuthurst and Harding
Fox, W., and Sons
Prunk, Davis and Co.

OPTICIANS

Dartford, F., and Co.
Perken, Son and Rayment
Raphael, J., and Co.

ointment BASES

Burroughs, Wellcome and Co.
Chesbrough (Vaseline)
Grindley (Retrolent Jelly)

OPHTHALMIC

Pomies, Dr.

OTTO OF ROSE

Fuerst Bros.
Shipoff and Co.
Treat, E. C.

PEPSINE, &c.

Burroughs, Wellcome and Co.
Fletcher, Fletcher & Stevenson
Newbery (Ingluvin)
Werner and Co. (Ingluvin)
Zimmermann

PAPAIN FINKLER

Kuhn, B.

PARALDEHYDE

Zimmermann, A. and M.

PATENT AGENTS

Dukes, B.
Horn and Son

PATENT MEDCNS

Alofas Co.
Armbricht, Nelson and Co.
Atkinson and Barber (Infants' Preserv)
Barclay and Sons (Limited)
Beecham (Pills)
Beedler, J., and Co.
Crouch, F. B. (Waters)
Dahl's Dyspepsia Cakes
Da Silva and Co.
Edwards and Son
Evans, Lescher and Webb
Fenning's (Powders)
Goodall, Backhouse and Co.
Grosgrain, C.
Holloway (Pills and Oint.)
John's Liver Pills
Kemp, W. H.
Koptica Cure
Lalor (Phosphodyne, &c.)
Lincoln (Clarke's Mix.)
Mason, W. B.
May, Roberts and Co.
Meythrosine Manufacturing Co.
Newbery and Sons.
Oil of Olive Co.
Powell, A. E. and Co. (Moon-seed Bitters)
Redmond's Stomach Wash
Roberts and Co. (Foreign)
Sequah (Limited)
Smith, Sam
Swift's Specific Co.
Warner, H. H., & Co.
Wilson, A. (Hunter's Nerve)
Wood, Thomas

PERFUMERY,**FANCY SOAPS**

Blondeau and Co.
Burroughs, Wellcome and Co.
Chesbrough Manufacturing Co.
Chiswick Soap Co.
Cook, E., and Co.
Coward and Co.
Dee Oil Co. (Limited)
Durrant, Geo.
Evans, Sons and Co. (Fossoline)
Ewen (Soaps)
Farina, J. M.
Foulkes, W. J.
Girard fils
Grenfell, P. S., and Son
Johnson and Co.
Mann, C. A., and Co.
Maw, Son and Thompson
Mouilla Liquid Soap Co. (Lim.)
Newbery and Sons (Rerodex)
Ollinger, E.
Osborne, Bauer & Cheeseman
Pears' Soap
Price's Patent Candle Co.
Rouse & Co.
Sainsbury, S. (Lav. Water)
Shipoff and Co.
Shirley, A. W.
Steidman, J.
Thompson, Walters, Hole and Co. (Limited)
Treat, E. C.
Truefitt, H. P. (Limited)
Vigis, L.
Violet
Vogt, G., and Co.
Warrick Brothers
Wedlake, M.
West, T. (Ockell's Mona)
Woolley, Sons & Co. (Powder)

PETROLEUM

Anglo-American Oil Co. (Lim.)

PEPPERMINT OIL

Cocking and Co.

PEROX. OF HYDR

Dunn and Co.
Robbins and Co.

PHARM. PREPS.

Allen and Hanburys
Baelz, R., and Co.
Barron, Squire and Co.
Billault
Brady and Martin
Burgoyne, Burbridges
Burroughs, Wellcome & Co.
Chanteaud, G.
Chassaing and Co.
Dee Oil Co. (Limited)
Duncan, Flockhart and Co.
Farris and Co.
Fletcher (Syrups for Syrups)
Fruenau, E.
Hearon, Squire and Francis
Hewlett and Son
Hill, A. S., and Son
Hooper, B., and Co.
Howards and Sons
Keith (Conc. Tinctures)
Lorenz, H.
May and Baker (Phenacetins)
Parkin and Portland
Rouges and Co.
Roberts and Co.
Symes and Co.
Tucker, J., and Co.
White, Alfred, and Sons
Willows, Francis and Butler
Woolley, Sons and Co.
Wright (Various)

PHOTOGRAPHIC

American Camera Co.
Boughton and Grey
Howards and Son (Chemicals)
Marion and Co.
May and Baker
Orme, J., and Co.
Perken, Son and Rayment
White, Alfred, and Sons

FINE PRODUCTS

Burroughs, Wellcome and Co

Stern, G. and G.

PILLS (Coated, &c.)

Allen and Hanburys

Becham, Thomas

Eade's Gout Pills

Evans, Sons and Co.

Holloways

McKesson and Robtins

Newbery and Sons

Penny Quinine

Towle, E. P.

Warner, W. R. & Co. (Coated,

Wyleys and Co.

PILL MACHINES

Pindar, J. W.

Robertson, J., & Co. (Coating)

Toogood, W. (Coater)

PLASTERS

Cooper and Co.

Evans, Sons and Co.

Johnson and Johnson

Mather, W.

Quilliam, J., and Co.

St. Dalmaz, A. De

Seabury and Johnson

Thompson, M. F.

Young, E.

PODOPHYLLIN, &c.

Keith, B., and Co.

Smith, T. and H.

POLISHING

Bradley & Bourdas (Alhambra)

Fordham, W. B., and Sons

(Limited)

Osake, John, and Sons

Griffiths, T. M.

PORCELAINGOODS

Toogood, (E.C. Pots, regist.)

PRINTING

Bowers Bros.

Cyclostyle Co.

Davis, J., and Co. (Limited)

Ford, Shapland and Co.

Silverlock, H.

Townsend, J.

Zuccato and Woolf.

PUMILINE

Stern, G. and G.

QUININE SALTS

Andreas, Oscar, and Co.

Beckringer, C. F., and Sohne

Howards and Sons

Kuhn, B.

Rivers, Hicks (Penny Quinine)

Zimmermann and Co.

RECIPES

Brooks, T.

RENNET

Duncan, Flockhart and Co.

Johnsen and Jørgensen

Oldfield, Pattinson and Co.

RESPIRATORS

Arnold and Sons

Hockin, Wilson and Co.

Schutze, F., and Co.

SACCHARIN

Allen and Hanburys

Burroughs, Wellcome and Co.

SALICIN

Macfarlan and Co.

Smith, T. and H., and Co.

SALICYLIC ACID

(Kolbe's)

Fuerst Bros.

SALOL

Kuhn, B.

SAUCES, PICKLES

Goodall, Backhouse and Co.

Tyrer, P.

SCHOOLS, &c.

Bailey and Coates

Central School of Chemistry

and Pharmacy

City School of Chemistry and

Pharmacy (Lim.)

Liverpool School of Pharmacy

London Homoeopathic and

Medical School

Manchester College

South London School of

Pharmacy, Lim.

The School of Pharmacy

Westminster College

SOAP

Blondeau and Co. (Vinolia)

Chiswick Soap Co.

Cook, E., and Co.

Fordham, W. B., and Sons

Pears' Soap

SELTZGENES

Bratby and Hinchliffe, (Ld.)

Evans, Sons and Co.

Fevre, T.

Gerant, E. and Co.

Idris and Co.

May, Roberts and Co.

SHEEP DIP

Fletcher, Bros. and Co.

SHOP FITTERS

Bowling and Govier

Bygrave, J. and W.

Corsan, J. B.

Evans, Sons and Co.

Howlett, S.

Natali, E. (Show Cases)

Pothe, H., and Co.

Treble, G., and Co.

Treble, G., and Son

Yates, W. S.

SPONGE

Harris and Co.

Maw, Son & Thompson (Bags)

Peterson, M., and Co.

SPIRIT

Burroughs (Pure and Methyl)

Harvey, J. W., and Co.

Jones and Co. (Methyl)

Macnair, A., and Co.

Macnair, J. and D., and Co.

Phillips and Co.

SPECTACLES

Botwright and Grey

Darton, F., and Co.

Perken, Son and Rayment

Raphael and Co.

STAMPS (RUBBER)

Hicklison, J.

Pollard, A. W.

STOPPERS

Austin and Co. (Sprinklers)

Barnett and Foster

Sanders, H. G., and Son

STOVES

Clark, S. and Co.

SURGICAL

Ayrton and Saunders

Bailey, W. H., and Son

Barclay and Sons (Limited)

Cooking, J. T.

De Luc

Eschmann Bros. and Walsh

Haywood, J. H.

Ingram and Son

Liverpool Patent Lint Co.

Mestivier and Co.

Robinson and Sons

Schutze, F., and Co.

Schoenfeld Freres

Thompson, Walters, Hole and

Co. (Limited)

Wood, Vincent

Woolley, Sons and Co.

STARCH

Crichtonley (Gloss)

SUGAR

Gibson, R., and Sons

SULFONAL

Burroughs, Wellcome and Co.

May and Baker

SYPHONS

Barnett and Foster

Bratby and Hinchliffe (Ld.)

Fawcett and Co.

Fevre, T.

Kilner Bros.

Prudon and Dubost

SYRINGES

De Luc

Schoenfeld Freres

Sumner, R., and Co.

SYRUPS

Fletcher, Fletcher (Liquors)

Idris and Co.

TILL

Stokes, G. R. & Co. (Lim.)

TIN CANISTERS

Noakes, B., and Co.

TEA

Cave, Johnson and Co.

French and Langdale

Gt. Tower St. Tea Co.

Santha Tea

United Kingdom Tea Co. (Ld.)

Walker and Dalrymple

TOBAC.—CIGARTS

Bewlay and Co.

Fescock, M. & B.

Taddy and Co.

THERMOMETERS

Bailey, W. H., and Son

Berry, P. H.

Darton, F., and Co.

Perken Son and Rayment

TOILET

Fordham, W. B., and Sons

Hopgood and Co.

Mumford, G. S.

Quelch, H. C.

Simon, J.

Tredwell, H. P. (Limited)

Vialis, H. & Co.

TOOTH PASTE

Jewsbury and Brown

Maw, Son and Thompson, S.

Quelch, H. C.

Sutton, O., and Co. (Block)

Wilson, A. (Bunter's)

Woods, M. (Arecas)

TRADE MARKS

Dukes, B.

Horn and Son

TRUSSES

Ayrton and Saunders

Bailey, W. H., and Son

Haywood, J. H.

TYPE-WRITING

Pollard, A. W.

Richards, J. M.

URETHANE

Howards and Sons

VACCINATION

Vaccine Association (Lymph)

VALUERS AND**TRANSF. AGENTS**

Baker, P. G.

Berdoe & Co.

Brett, F. J.

Crocker, G. B.

Greenwood, S.

Orridge and Co.

Tomlinson, T., and Son

VASELINE

Chesebrough Manufacturing Co.

VERMIN KILLERS

Battie, J. H.

Sanford and Son

Steiner and Co.

VETERINARY

Day and Sons

Day, Son and Hewitt

Elliman, Sons and Co.

James, W. H. (Blister)

Merrice Chantilly, P.

Reckham and Co.

Spratts (Dogs)

Sutton, F., and Co.

Walker, Troke and Co.

Wyleys and Co.

VINEGAR

Newham and Pickard

VINOLIA

(Superfatted Medi-

cal and Toilet)

Blondeau and Co.

WHOLESALE AND**EXPORT DRUGS**

Allen and Hanburys

Barron, Harveys and Co.

Brothers, J. and Co.

Burgoyne, Burdidges and Co.

Bush, W., Son and Co.

Clay, Dod and Co.

Conard, G. F., and Co.

Evans, Sons and Co.

Evans, Leacher and Webb

Evans and Sons (Limited)

Ferris and Co.

Fox, W., and Sons

Goodall, Backhouse and Co.

Harker, Stag and Morgan

Hearon, Squire and Francis

Hewlett and Son

Hill, A. S., and Son

Lofthouse and Saltmer

Macfarlan, J. F., and Co.

Oldfield, Pattinson and Co.

Potter & Clarke (America)

Sumner, R., and Co.

Sykes and Co.

Thompson and Capper

Thompson, Walters, Hole and

Co. (Limited)

Walker, Troke and Co.

Willows, Francis, and Butler

Woolley, Jas., Sons and Co.

Wright, Layman and Umney

Wyleys and Co.

WINES, SPIRITS

Coleman and Co. (Meat)

Durrant, G. (Orange) Malt

Goodall, Backhouse and Co.

Harvey, J. and W., and Co.

Idris & Co.

Jones and Co.

Miller, A., and Co.

Phillips, G., and Co.

Robinson, B.

Smith, S., and Co. (S.V.R.)

USE LIEBIG

COMPANY'S

EXTRACT

OF MEAT.

**** Ask for the COMPANY'S Extract, and see that it bears Justus von Liebig's SIGNATURE IN BLUE INK across the Label.**



SUPPORT HOME INDUSTRIES AND YOURSELVES.

SAVARS FEEDING BOTTLES

Are of British Manufacture throughout.
ARE SOLD ONLY TO REGISTERED CHEMISTS.

SAVARS GRADUATES, MEDICINE GLASSES, &c.,

Are of British Manufacture.
ARE SOLD ONLY TO REGISTERED CHEMISTS.

SAVARS ENEMAS, SYRINGES, &c.,

Are of British Manufacture.
ARE SOLD ONLY TO REGISTERED CHEMISTS.

SAVARS TRUSSES, BANDAGES, BELTS, ELASTIC

GOODS, &c., are of British Manufacture.
ARE SOLD ONLY TO REGISTERED CHEMISTS.

SAVARS PLAISTERS, including Rubber Combination,

Are of British Manufacture.
ARE SOLD ONLY TO REGISTERED CHEMISTS.

SAVARS ABSORBENT COTTON WOOL

Is British Make.
IS SOLD ONLY TO REGISTERED CHEMISTS.

SAVARS FOSSILINE, a true Hydrocarbon Jelly,

Is Manufactured only by Undersigned.
IS SOLD ONLY TO REGISTERED CHEMISTS.

SAVARS PERFUMERY, POMADES, TOILET REQUI-

SITES, HOUSEHOLD REQUISITES, and Proprietary Articles generally
ARE SOLD ONLY TO REGISTERED CHEMISTS.

HAWLEY'S COUNTER ADJUNCTS.

Special Pharmaceutical and other useful preparations, artistically labelled, and, where desired, with Chemist's own name and address. For full list see Pamphlet, "List of Counter Adjuncts," supplied gratis on receipt of Business Card.

SOLD ONLY TO REGISTERED CHEMISTS.

LIVERPOOL:

EVANS, SONS & CO.

LONDON:

EVANS, LESCHER & WEBB.

CANADA:

EVANS AND SONS (LIMITED).

TABLOIDS of COMPRESSED DRUGS.

LONDON.]

DECEMBER 14

[1889.]

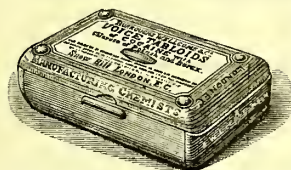
VOICE TABLOIDS.

Composed of COCAINE, Chlorate of Potash and Borax.

Impart a clear and silvery tone to the voice. Easily retained in the mouth while singing or speaking. Now used by the leading singers and public speakers throughout the world.

DIRECTIONS. — A single Tabloid may be slowly dissolved in the mouth to remove huskiness or hoarseness.

Supplied to the Trade in beautifully graven white metal boxes, with blue silk labels, at 8s. and 16s. per dozen. Retail prices, 1s. and 2s. per box.



CHLORIDE OF AMMONIUM TABLOIDS.

The solvent and discutient as well as antiphlogistic powers of Chloride of Ammonium are well known, and have led to its extensive employment in cases of sore throat and bronchitis, attended with abundant secretion of thick and tough mucus or phlegm. The Tabloids slowly dissolving secure direct and continuous contact with the inflamed surface. They quickly mitigate irritation, and lessen expectoration.

Two or three of the Tabloids will sometimes entirely relieve coughs that have long resisted treatment with ordinary remedies.

Supplied to the Trade in bottles, at 4s. 6d. and 12s. 6d. per doz. Retail prices, 6d. and 1s. 6d. each.

SULPHONAL TABLOIDS.

This new hypnotic is now proclaimed to be the most satisfactory of those in present use. Being utterly devoid of any toxic action, it produces "calm and natural sleep," without affecting the heart's action or causing gastric disturbance. Dr. Lauder Brunton, in the Croonian Lectures, 1889, spoke highly of Sulphonal as an hypnotic. "It is one of the most effective of all the recently introduced hypnotics. It does not compel sleep like morphia, but induces it in a pleasant manner, and has few disagreeable after-effects and no danger. Paraldehyde imparts an unpleasant odour to the breath for a long time after taking it. Sulphonal does not depress the heart's action like Chloral."



A leader in the *British Medical Journal* of November 2, 1889, respecting Sulphonal, says:—"It produces a quiet sleep from which the patient awakes refreshed."

The insolubility of Sulphonal in cold water is its great drawback, and this being observed the Tabloids were introduced, each containing 5 grains of Sulphonal in an impalpable powder. When the Tabloids are crushed in any warm fluid they completely dissolve, and may be given to the patient without exciting suspicion.

Sulphonal Tabloids (5 gr.)—the most eligible form of the drug—are supplied in bottles containing 25 and 100, at 12s. and 36s. per dozen (subject to fluctuation of the market).

Sulphonal (Bayer) supplied to the trade at 1s. 6d. per oz. (subject to the fluctuation of the market).

CHLORATE OF POTASH TABLOIDS.

FOR AFFECTIONS OF THE VOICE, THROAT AND RESPIRATORY SURFACES GENERALLY.

By using the Tabloids the drug is effectually brought in contact with the oral mucous surfaces as a continuous gargle, and its specific action made certain. In acute sore throat, Chlorate of Potash "usually relieves the uneasiness in a few hours" (Cohen). "It is used in ulcerated mouth and follicular pharyngitis, and has been employed in croup, diphtheria, and spasm of the larynx" (Brunton).

"Of convenient size, they are beautifully made; and, as they dissolve slowly in the mouth, are well suited for throat affections."—The LANCET.

Supplied to the Trade in beautifully graven white metal boxes, blue silk label, at 4s. and 8s. 6d. per dozen. Retail prices, 6d. and 1s. each.

CHLORATE OF POTASH & BORAX TABLOIDS.

The Tabloids afford an agreeable form in which to administer Chlorate of Potash and Borax.

Supplied to the Trade in beautifully graven white metal boxes, with pink silk labels, at 4s. and 8s. 6d. per dozen. Retail prices, 6d. and 1s. each.



TABLOIDS prepared by B. W. & C.

Aconite Tinct. 1 min.
Aloin, 1/10 gr.
Ammon. Bromide, 5 and 10 gr.
Ammon. Chloride, 3, 5 and 10 gr.
Ammoz. Chloride with Borax.
Aloin, 1/10 gr.
Anti-Con- { Strych. 1/60 gr.
stipation { Belladon. Ex. 1/8 gr.
 { Ipecac. 1/16 gr.
Antifebrin, 2 gr.
Antimony Tartrate, 1/50 gr.
Antipyrin, 5 gr.
Apomorphine Mur., 1/50 gr.
Arsenious Acid, 1/100 and 1/50 gr.
Atropia Sulph., 1/100 gr.
Belladonna Tinct., 1 min.
Bismuth Sub-nit., 5 and 10 gr.
Blue Pill.
Borax, 5 gr.
Caffein Citrate, 1 gr.
Calcium Sulphide, 1/10 gr.
Calomel, 1/10 and 1/2 gr.
Capsicum Tinct., 1 min.
Cascara Sagrada Ext., 2 gr.
 { Cascara Sagrada Ext. (Dry) 1 gr.
 { Eucalyptin, 1/2 gr.
 { Nux Vomica Ext. 1/16 gr.
Cathartic Comp., U. S. P.
Charcoal, 5 gr.
Chloral Hydrate, 5 and 10 gr.
Cocaine, Potash and Borax (Voice)
Creosote Aromat. cum Opio Pulv., 5 gr.
Digitalis Tinct., 1 min.
Digitalin, 1/100 gr.
Dover Powder, 1/4 and 5 gr.
Eucalyptin Resin, 1/8 gr.
Hydragr. cum Creta (Grey Powder), 1/3 gr.
Hydragr. Iod. Rub., 1/20 gr.
Hydragr. Iod. Vir., 1/8 gr.
Hydragr. Perchlor., 1/100 gr.
Hydragr. Subchlor. (Calomel), 1/10 and 1/16 gr.
Hyoseyamus Tinct., 1 min.
Ipecac. and Opium (Dover Powder), 1/4 and 5 gr.
Ipecac. Powder, 1/10 and 5 gr.
Iron and Quinine Cit., 3 gr.
Laxative Vegetable.
Lithia Carbonate, 2 gr.
Manganese Dioxide, 2 gr.
Morphine Sulph., 1/20 and 1/8 gr.
Nitroglycerine.
Nux Sulpho-carbolate, 1 min.
Opium Tinct. (Laudanum), 2 min.
Papain, 2 gr.
Pepsin, Pure (Fairchild).
Pepsin Saccharate, 5 gr.
Peptouic.
Phenacetin, 5 gr.
Pilocarpin Mur., 1/20 gr.
Podophyllin Resin, 1/4 gr.
Potash Bicarb., 5 gr.
Potassium Bromide, 5 and 10 gr.
Potash Chlorate, 5 gr.
Potash Chlorate with Borax.
Potash Nit. (Sal. Trunc.) 5 gr.
Potash Permanganate, 1 and 2 gr.
Potassium Iodide, 5 gr.
Quinine, 1/10, 1/2, 1, 2, 3 and 5 gr.
 { Quinine Sulphate, 1 gr.
 { Iron Hypophosphate, 2 gr.
 { Acid. Arsenios.
 { Strychnine Sulphate, aa 1/50 gr.
 { Saccharin, 1/100 gr.
Rhubarb, 3 gr.
Rhubarb Comp. (Pil.), 3 gr.
Rhubarb Comp. Pulv. (Gregory Powder), 5 gr.
Rhubarb and Soda, 5 gr.
Saccharin, 1/2 gr.
Salicin, 5 gr.
Salol, 5 gr.
Santonin, 1/2 gr.
Soda Bicarbonate, 5 gr.
Soda-Mint (Soda, Ammon. Carb. & Mint)
Soda Salicylate, 3 and 5 gr.
Strophanthus Tinct., 2 min.
Sulphonal, 5 gr.
Sulphur Comp. (Dr. Garrod's Fo. mula)
Tannin, 2/3 gr.
Test Tabloids (Fehling's).
Thirst.
Tinct. Camph. Co. (Paregoric), 2 min.
 { Iron Paeophos, 2 gr.
Tonic Comp. { Quinine Sulph. 1 gr.
 { Strychnine Sulph., 1/100 gr.
Trinitrine (Nitroglycerine), 1/100 and 1/50.
Trinitrine and Amyl Nitrate.
 { Trinitrine, 1/100 gr.
Trinitrine Comp. { Nitrite of Amyl 1/2 gr.
 { Cassium, 1/50 gr.
 { Menthol, 1/50 gr.
Urethane, 5 gr.
Voice (Potash, Borax, and Cocaine).
Warburg Tincture, 30 mins. in each.
Zinc Sulphate, 1 gr.
Zinc Sulpho-carbolate, 2 gr.
Zymine Tabloids.
Zymine Comp. Tabloids.

These pure and palatable Tabloids of Compressed Drugs are supplied in convenient packages for dispensing and at moderate prices.

BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.

Above Prices subject to usual Discount.

"VASELINE," in 1d., 2d., & 3d. TINS.

All nicely wrapped, and stamped with the name of

THE CHESEBROUGH MANUFACTURING CO., the Proprietors and Sole Manufacturers.

NONE OTHER GENUINE.

1d. Tins, One Gross in Wood Box	at 8/- per Gross net.	} Of all Wholesale Houses, or Sample Boxes Carriage paid on receipt of Postal Order.
2d. Tins, One	"	"	...	" 16/-	
3d. Tins, Half	"	"	...	" 24/-	

CAUTION.—The fancy word "VASELINE" is the Registered Mark, and is the exclusive property of this Company, and indicates *THEIR* make and putting up of *THEIR* preparations of Petroleum Jelly.

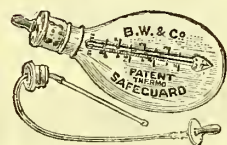
SHOW CARDS AND CIRCULARS ON APPLICATION.

42 HOLBORN VIADUCT, LONDON, E.C.

THE THERMO-SAFEGUARD FEEDING BOTTLE (B. W. & CO.)

As a Practical and Scientific Invention for protecting the lives of infants, nothing, except Fairchild's discovery of the pure Zymine Peptonising agents, has of late years approached in importance the Thermo-Safeguard Feeding Bottle.

The Thermo-Safeguard Feeding Bottle has a thermometer imbedded in the glass in such a manner as to correctly and distinctly indicate the temperature of the contents. It has the further advantage (since the bottle is marked in ounces) of giving a register of the exact amount of food taken at each feeding, thus tending to avert the evil of over-feeding. It is specially adapted for use in connection with the Zymine Peptonising Powders (Fairchild).



"The Bottle has a great deal to recommend it."—*British Medical Journal*.

"The best of all Feeding Bottles, and ought to be universally used."—*Edinburgh Medical Journal*.

No. 1 ... 9/- per doz. | No. 2 ... 12/- per doz. | No. 3 ... 22/- per doz.

Above prices subject to usual discount.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, London, E.C.

ISO-BUTYL NITRIS.

Also GLASS CAPSULES of ISO-BUTYL NITRITE.

For use in Angina Pectoris, Asthma, and similar complaints, by Inhalation.

Liquor Cascaræ Suavis.

(REGISTERED.)

An agreeable Aromatic Fluid Extract of *Cascara Sagrada*, possessing the full laxative and aperient properties of the bark.

Sol. Æthyl Nitritis.

Containing 3 per cent. of Pure Nitrite of Ethyl, in Absolute Alcohol and Glycerine.

See paper by Professor LEECH on "The Comparative Effects of Spiritus Ætheris Nitrosi and Solution of Ethyl Nitrite," *Pharmaceutical Journal*, December 22, 1888.

Spiritus Ætheris Nitrosi.

Guaranteed to contain the proportion of Nitrous Ether directed by the British Pharmacopœia.

Æther Nitrosus and Sol. Ætheris Nitrosi.

Respectively 8 and 4 times the strength of the Spirit.

JAMES WOOLLEY, SONS & CO.

Manufacturing Pharmaceutical Chemists,

MANCHESTER.

Laboratories and Drug Mills, KNOWSLEY STREET, CHEETHAM.

QUOTATIONS AND PRICE LIST FORWARDED ON APPLICATION.



ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICES:

MELBOURNE, SYDNEY, AND NEW YORK.

Published every Saturday.

Subscription 10s. per year, payable in advance; dating from the commencement of any month.

Supplied only to persons connected with the Trade.

Post free to every country in the world. Single copies 4d. each.

Cheques or Postal Orders should be payable to EDWARD HALSE, and crossed MARTIN & Co.

Supplied regularly to every member of the following Societies, who have adopted THE CHEMIST AND DRUGGIST as their official organ:—

The Pharmaceutical Society of New South Wales.

The Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

The Hobart Chemists' Association.

The Launceston Pharmaceutical Association.

South African Pharmaceutical Association.

For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

Literary Contents.

PAGE	PAGE
Bankruptcy Reports	836
British Pharmaceutical Conference	820
Chemists' Christmas Presents	825
Commentary	833
Correspondence:—	
Pharmacopœia Corrections; Natural v. Artificial Salicylic Acids; The Sale of Poisons by Unqualified Persons, &c.	843
Medical English; Tincture of Rhubarb; Mr. Leigh's Scheme, &c.	841
Miscellaneous Inquiries	844
Legal Queries	846
Deaths	818
Deed of Arrangement	837
Editorial Notes:—	
The Pharmacy Bill	830
The Influenza Epidemic	831
Pharmaceutical and Trade English	832
Fair Dispensers	837
French Pharmaceutical News	820
Gazette	836
General and Provincial News	819
Horse Balls	824
Legal Reports	835
Metropolitan Reports	816
Our Town Traveller	828
Personalities	837
Pharmaceutical Society of Ireland	823
Pharmaceutical Society of Great Britain: Evening Meeting	821
Pharmacy in Australia	827
Provincial Reports	816
Reviews	834
Trade Notes	827
Trade-marks applied for	837
Trade Report	833

POST-CARD COMPETITION.

DECEMBER, 1889.

ALL subscribers have now, we hope, received THE CHEMISTS' AND DRUGGISTS' DIARY for 1890, and are spending a portion of their leisure time in admiring it. Those who care to enter this competition are invited to tell us on post-cards, and before December 31, which they consider in it

1. The most effective advertisement.
2. The most useful advertisement.
3. The most novel advertisement.
4. The best-looking page advertisement.
5. The best-looking $\frac{1}{2}$ -page advertisement.
6. The best-looking $\frac{1}{4}$ -page advertisement.

The one who nearest hits the general consensus of opinion will be entitled to one guinea. Employés of subscribers and their wives and families are at liberty to compete. Cards reaching us after the date fixed will be rigidly excluded. The questions can be answered from the numbers attached above.

PEOPLE POISONED IN 1888.

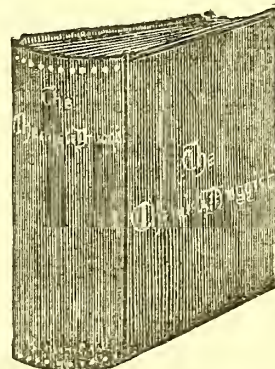
THE Registrar-General reports that, of the 701 people who were poisoned in 1888, 377 were males and 324 females. Of the males, 260 were in the accidental and 117 in the suicidal class. The former included 172 females, and the latter 151 females. It may be said that one out of nearly every five men, and one out of nearly every four women, who commit suicide resort to poison.

The following are the particulars of the poisons which are used with fatal effect, and the frequency with which they were used:—

	Accidental	Suicides		Accidental	Suicides
Arsenic	5	5	Prussic acid and oil of almonds ..	2	20
Mercury	4	1	Hemlock	2	—
Lead	103	1	Calocynth	1	—
Sulphate of copper ..	1	—	Aconite	4	—
Antimony	1	—	Thorn apple ..	1	—
Bichromate of potash ..	2	—	Yew leaves ..	1	—
Iodine	1	—	Fungi	2	—
Chloride of zinc ..	2	—	Strychnia, nuxvomica ..	4	17
Ammonia	5	4	Whinflower ..	1	—
Phosphorus	9	11	Weed	1	—
Sulphuric acid	5	6	Meadow crowfoot ..	1	—
Nitric acid	2	4	Berries	1	—
Hydrochloric acid ..	6	14	Improper food ..	1	—
Oxalic acid	3	19	Poisonous fish ..	4	—
Carbolic acid	37	64	Liniment	5	1
Acetic acid	1	—	Decomposed fruit ..	4	—
Benzoline	1	—	White precipitate ..	—	1
Camphorated oil ..	1	—	Corrosive sublimate ..	—	1
Opium, laudanum, morphia	95	61	Salts of lemons ..	—	4
Bateman's peccoral drops ..	1	—	Corrosive acid ..	—	1
Cough elixir	10	1	Paraffin	—	1
Chloro lyne	1	—	Turpentine	—	1
Alcohol	6	—	Cyanide of potassium ..	—	10
Paregoric	1	—	Vermine	—	21
Narcotic	3	3	Dynamite	—	1
Chloral	1	2	Kinds not stated ..	20	44
Colchicum	1	—			
Belladonna	6	2			

By lead-poisoning is meant the disorder which workers in lead factories suffer from. The number was slightly higher than in the year preceding. The principal feature of the above returns is the remarkable increase in the number of deaths from carbolic acid. This is by no means a new fact, for the rate at which people were dying from this poison in the summer of 1888 caused at the time considerable public alarm and an agitation to have the sale of the acid restricted. The figures before us show that the actual number of deaths was 101, as compared with 52 in the year before. With this exception the figures on the list are much similar to the average. Oxalic acid is lower in the suicide class, vermin-killer higher by six, and strychnine by five. Opiates are ten higher in the same class, and mineral acids on the whole lower. Chloro dyne caused a few more accidental deaths.

The reading cases which we offer to subscribers are now used by a very large number of chemists, and are found very convenient. They keep together thirteen numbers in very tidy form, always ready for reference. By having two cases in hand the numbers of a complete volume are always available until the time comes for binding. We sell these cases at the office for 1s., or by parcels post 1s. 3d., or two for 2s. 3d. We cannot forward them to any house for enclosure, nor by any of the carriers, as in the latter case we have to pay for booking.



Metropolitan Reports.

THE 100% fully-paid shares in the London Commercial Sale Rooms appear to be estimated at close on 200% each. Forty-two of them were sold at auction by Messrs. Fox & Bousfield on Wednesday for 8,104% 10s.

UNQUALIFIED ASSISTANTS who sell poisons do not have the sympathy of the Chemists' Assistants' Association. At a meeting on Tuesday evening, two dozen being present, the action of the Pharmaceutical Council was sustained, the motion to the contrary being defeated by an overwhelming majority.

ROBBING A CHEMIST'S WIFE.—At Dalston police-court on Tuesday afternoon, Henry Draper, a sugar-boiler, of Commercial Road, East, was charged before Mr. Haden Corser with stealing a purse and money from the jacket pocket of Mrs. Mary Ellen Sandys, wife of a chemist, of 302 Mare Street, Hackney. Prosecutrix said she was with her little boy looking in a toy-shop window, when she felt a hand at her pocket, and at once missed her purse. She said nothing, but followed prisoner until she met with a police constable, and then she gave prisoner into custody. The purse was found upon prisoner by P.S. 462 J., who apprehended him; and prisoner was remanded for inquiries.

THE WESTMINSTER COLLEGE PHARMACY CLUB.—At a meeting of the club, held on Tuesday, a paper was read by Mr. H. Wootton on "Electrical Induction Machines." After explaining the general principle of induction, the lecturer described the construction and theory of working of machines by Carré, Bertsch, Holtz, Voss, and Wimshurst, illustrating his remarks by diagrams and by the exhibition of several of the machines in action. He recommended the cylinder modification of the Wimshurst machine as the best, for the following reasons:—1. It produced its own initial charge. 2. For the same expenditure of work, the flow of electricity is greater than with any of the other machines. 3. It is independent of the state of the weather; and (4) it is not liable to change of polarity. In conclusion, Mr. Wootton remarked that, though these machines may not be so important in the service of man as the instruments used in telegraphy and in the production of the electric light, the consideration of the phenomena connected with induction is an excellent aid to the acquirement of a knowledge of the true nature of the mysterious force called electricity.

DISPENSERS' QUALIFICATIONS.—The Holborn Board of Guardians, at their meeting on Wednesday night, had again under discussion their dispensers' wages and qualifications. Dr. Kelly moved:—"That the salary of Mr. Thomas Knowles, dispenser, be increased from 120% to 130% per annum, and that of Mr. Herbert H. Hewitt, assistant dispenser, from 72% 16s. to 100% per annum." The Dispensary Committee had decided, he said, not to fill up the vacancy caused by the resignation of Mr. Strachan, the chief dispenser, and by this means the guardians (taking into account the proposed increases) would save 90% a year. As Mr. Hewitt had done the bulk of the extra work during Mr. Strachan's absence and illness, it was thought he should be compensated. Mr. Dixie: I should like Mr. Hewitt's increase to be adopted, with the proviso that he qualifies himself within six months. I really think he ought to do something to pass his examination. If Mr. Knowles was away, Mr. Hewitt would have sole charge, and have to do the work. Mr. Howes: Mr. Hewitt has been in our service some years, and has never yet taken his qualifications. Mr. Dixie: I don't doubt his ability, but it is necessary he should have his qualifications. Mr. Howes: I should say, give him 90% a year until he has his qualifications, and then give him the 100%. Dr. Kelly objected to this. Mr. Howes: But if anything happened in the place, what an outcry there would be about the Holborn Guardians employing unqualified dispensers! I think it would be an incentive to Mr. Hewitt to qualify himself if we gave him his increase as I have suggested. Dr. Kelly said he would accept the suggestion. Mr. Ross: Beyond all doubt the young man is a good dispenser—as good as any, but the marvellous thing is that he gets plucked when he goes up for examination. It was decided to give Mr. Knowles the salary stated, and Mr. Hewitt 90% until he passes, and then 100%.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.

BIRMINGHAM.

THE MIDLAND COUNTIES CHEMISTS' ASSOCIATION.—The annual supper in connection with this association will take place on Wednesday evening next at the Midland Hotel. The gathering is expected to be a large one. The question which local pharmacists are asking themselves is, Can the mayor, who is a chemist, be induced to preside on the occasion?

THE PROSECUTION OF QUACK DOCTORS.—The actions instituted by the Apothecaries' Society against several unqualified practitioners in the city are set down for hearing at the Birmingham County Court on Monday next. The suits are against Mr. Arthur Brown for penalties amounting to 20%, against Mr. Welch for a like sum, and against Messrs. Marston, Groom, and Key for two penalties of 20% each. In the case of Marston the defendant has paid the amount claimed, 40%, into court.

LEICESTER.

CHEMISTS' ASSOCIATION.—A meeting of this association was held on Thursday, December 5, when Mr. W. Thirlby read a paper on the Medicine Stamp Act, and a discussion followed. The President (Mr. J. G. F. Richardson), in proposing a vote of thanks to Mr. Thirlby, suggested that as the meeting showed a feeling of dissatisfaction with the present administration of the Act, a committee should be formed to memorialise the Council of the Pharmaceutical Society on the subject. The proceedings terminated with a vote of thanks to the hon. secretary, Mr. J. H. Shepherd, for his past services. He is resigning his post on leaving the town.

LIVERPOOL.

MR. CARRUTHERS, formerly a student at the Liverpool School of Pharmacy, has recently commenced business at Bootle.

NEW PHARMACY.—Mr. J. C. Thompson is opening a new shop, nicely fitted, at the corner of Clifton Road, West Derby Road, which he designates "The Clifton Pharmacy."

DINSMORE GAS.—On Wednesday, December 4, the members of the Liverpool section of the Society of Chemical Industry visited, by invitation, the process of gas manufacture under the Dinsmore patent at Widnes, where it is being tested on a manufacturing scale. The object of the process is to use up a large portion of the tar, converting it into gas, and thus to economise the production of the latter.

LIVERPOOL CHEMISTS' ASSOCIATION.—At the meeting held on Thursday evening communications were read on "Infusum Senegæ Concentratum," by Mr. A. S. Buck, and on the papers brought before the recent meeting of the British Pharmaceutical Conference by Mr. A. C. Abraham, F.C.S., F.I.C. Afterwards Mr. A. H. Samuel, F.C.S., delivered his valedictory address as president.

HOSPITAL REFORM.—Dr. Rentoul's proposals for remedying some of the abuses which exist with regard to medical charities are to be considered at a meeting of the Lancashire and Cheshire branch of the British Medical Association at an early date. Those who differ from Dr. Rentoul's proposals admit the existence of an evil and the want of a remedy, and they respect the persistency with which he follows up his subject.

MEDICAL SOCIETY.—At a meeting of the local society held on December 5, Dr. Glynn explained a method which he had found very useful for administering nitrite of amyl by inhalation. Four drachms of vaseline are mixed with two of nitrite of amyl and quickly transferred to a wide-mouthed jar of 2 oz. or 2½ oz. capacity with a metallic cap, having a well-fitting screw, and lined with thick sheet rubber. In

this way, he said, the nitrite kept quite well, and when required for use the patient at once inhaled by nose and mouth a ready-formed atmosphere of the nitrite.

MANCHESTER.

THE gas strike has been the all-absorbing topic of discussion in Manchester this week. It has not been without its effects on the drug trade. Like shopkeepers of all other classes, chemists and druggists, and especially those of them who, with or without reason, keep their premises open late at night, have been put to a good deal of expense in the purchase of oil-lamps and candles, with which to provide a supplement to, or substitute for, the gaslight. Loss has been occasioned, too, by the diminution in takings, caused by people not caring to come out in the badly-lighted streets. On the other hand, at many of the smaller shops, where such commodities are now dealt in in an increasing degree, a considerable harvest has been reaped by the sale of paraffin, naphtha, and other oils. At the time of writing the supply of gas is improving, and it is hoped that a week hence may be restored to its normal condition.

NEWCASTLE-ON-TYNE.

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.

—At the meeting of this association on Wednesday evening Mr. Frederick Park read an interesting paper on "Fermentation" to a comparatively small audience. Under organised ferments the action of the yeast cell was described very fully, and reference was also made to lactic, butyric, acetic, and other specific forms of fermentation. Coming to the unorganised ferments, Mr. Park made only brief references to the action of pepsin, ptyalin or diastase, emulsin, and myrosin. At the close a hearty vote of thanks was accorded to Mr. Park. A "moot" question in dispensing was raised by Mr. M. Bell, which elicited a great deal of interest, and it was proposed to have a dinner on Monday evening, December 30, a sub-committee, composed of Messrs. Bell, Ord, Merson, Oxen, and Park, being appointed to carry out the necessary arrangements.

SHEFFIELD.

PHARMACEUTICAL AND CHEMICAL SOCIETY.—The first "students' night" was held on Wednesday, Mr. Fox, the president, in the chair. The first paper was on "Botanical Rambles round Sheffield," in which Mr. John Austin gave an interesting account of the plants which are to be found in the neighbourhood. He had a large collection of specimens on view, and described them after he had disposed of his manuscript. Following this a paper on

PILLS AND THEIR EXCIPIENTS,

by Mr. A. S. Smith, was read. The writer had not found glycerine a satisfactory excipient; the best all-round one, in his opinion, was a mixture of syrup and tragacanth, although for stock pills Proctor's paste was better. He spoke in glowing terms of extract of malt—too little in use at the dispensing counter—which is good for ferri et quin. cit., and as a substitute for official excipients in such cases as pil. ferri carb. and pil. aloes et ferri. After commenting upon creosote and some other pills on the "Art of Dispensing" lines, Mr. Smith said that for butyl chloral thick mucilage was best; whilst for Burgundy pitch the best excipient was P. tragac. co., with the help of a hot plate. For carbolic acid pills liquorice powder and mucilage gave good results. Soap powder answered well with camphor pills. For calcium chloride $\frac{1}{2}$ grain of resin and a sufficient quantity of Canada balsam to each pill. For potassium permanganate he recommended $\frac{1}{2}$ grain resin, fuller's earth and vaseline q.s. for each pill, as giving a good mass, when kaolin ointment was not procurable. The usual votes of thanks followed a good discussion.

ST. AUSTELL.

A FIRE broke out last week on the premises of Messrs. Watson & Co., chemists, &c. Mr. Watson thought he heard a leakage of water in an underground lumber-room, and

with a match went to see. The match burnt down to his fingers, and he let it fall on some straw, which immediately ignited. This resulted in a blaze, which was only got under after an hour's exertions.

STOCKTON.

THE TINCTURE CASE.—At the meeting of the Stockton Urban Sanitary Authority, following the prosecution of Mr. Joseph Power for sale of some tincture of rhubarb, Mr. Pearson, the inspector, reported the steps he had taken, and stated that the Bench dismissed the summons, but disallowed costs because the defendant had not given notice that he intended to set up a defence of warranty. By the last amendment of the Food and Drugs Act (added the Town Clerk) if the defendant proved warranty the magistrates are obliged to dismiss the summons, and action would lie against the manufacturer if at all. Had the defendant given him notice that he intended to rely on a defence of warranty he should not have proceeded with the case. Councillor Samuel said if the dictum laid down in that report was correct, the proceedings of that authority as to ordering prosecutions would be a farce. If a man gave notice of a defence of warranty, and proved his warranty, the case would go against the corporation, with costs. What he was surprised to find was that if the inspector had got notice the case would not go into court at all. Who was to try the case then? If that were so, the sooner they decided not to proceed with any further prosecutions the better. He thought when a summons was issued they ought always to proceed with the case, and let the magistrates decide it.—The Mayor: Does that apply exclusively to druggists?—Councillor Samuel: No, it applies to grocers or anybody.—The Town Clerk agreed with Mr. Samuel, but would remind him that it was no dictum of his, but a dictum of Parliament. The Act had been amended once, but in this respect it required further amendment.—Councillor Samuel said that was not his point. If the summons was taken out by order of that authority what right had any official to withdraw it?—they ought to let the magistrates decide.—The Town Clerk warmly retorted that officials endeavoured so far as they could to carry out the wishes of the authority, but they, perhaps as much as the members, had the welfare and dignity of the town at heart, and were sometimes called upon to use their common-sense. If the defendant in this case had given him notice on Wednesday, or even on Thursday morning, that he would stand on a warranty he should at once have withdrawn the proceedings.—Councillor Samuel continued to speak, but was called to order, and the report was adopted.

IRELAND.

BEECHAM'S Christmas Annual is seen everywhere in Dublin, the demand for the pennyworth being phenomenal.

AN enterprising Dublin trader has his billheads adorned with the announcement, that in consequence of the inaccuracy of chemical analysis he has ignored such tests in favour of a sworn magisterial declaration regarding the quality of his goods.

TENDERS for a year's supply of druggists' sundries are invited by the following public bodies:—The directors of the City of Dublin Steam Packet Company and the governors of the King's Hospital, Dublin.

MR. JOHN DARCY, chemist and druggist, Lombard Street West, Dublin, has just added an aerated-water factory to his establishment.

MR. A. T. GERMAN, a Liverpool gentleman has just started a neat and well-appointed mineral-water manufactory at Marks Alley, Dublin.

HERB-BEER at a penny per bottle, and the latter thrown in, is the latest "cut" among Irish traders.

AT Dublin last week a series of meetings took place between the representatives of the Irish railway companies and the city apothecaries, chemists, and mineral-water manufacturers, the points in dispute being the proposed classification of railway rates and charges for drugs, chemicals, and aerated waters.

PHARMACEUTICAL CHANGES.—Mr. James A. McKee, M.P.S.I., has resigned his position in Mr. Rice's medical hall, Newbridge, and undertaken the management of Mr. F. W. Bogan's dispensing department at 65 Patrick Street, Cork.

EMBEZZLEMENT BY A WHOLESALE DRUGGISTS' ASSISTANT.—At the Cork Police Court on Wednesday, December 4, Richards Pibbs was brought up on remand, and charged with embezzling the sum of 12s. 7d. from Messrs. Kiloh & Co. (Limited), with whom he had been engaged as assistant in the wholesale drug department. Mr. Julian, appearing for Messrs. Kiloh & Co., said that on January 2 last the accused received a cash order amounting to 19s. 6d. He gave a receipt for the money received, but only entered a portion of it in the firm's books, retaining 12s. 7d., for which he did not account. Mr. James Mahony, manager to Messrs. Kiloh, gave evidence as to the entry of the order. Mr. Deyos pleaded guilty on behalf of the accused, who, he said, had come to the firm some years before with the highest character. Unfortunately he had given way to drink. He admitted the theft, and threw himself on the mercy of the Court. The magistrates sentenced him to two months' hard labour.

SCOTLAND.

DUNDEE.

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—The tenth meeting of the session was held on Thursday evening, December 5, the president, Mr. John Forsyth, in the chair. There was a good attendance, and the room was gay with herbarium specimens on the walls and microscopes on the table. Mr. George Young was elected assistant secretary in place of Mr. Adam, who has gone to Aberdeen. The paper of the evening was by Mr. William Mair on "Botany and its Relation to Pharmacy." Mr. Mair stated that botany as a science had in a large measure originated through the wants of pharmacy. Thus it is common to find even to-day among uncivilised tribes a rough general acquaintance with the wholesome and poisonous plants with which they are surrounded. Some of the earliest botanical writings show that botany has always been in a large measure subservient to the needs of pharmacy. To illustrate how prominent a part herbalists took in the pharmacy of the past, a formula of about 200 years ago was read for an "Aequa pectoralis," in which all the vegetable ingredients, to the number of about twenty, were to be "gotten green that can be." This was compared with the tendency of to-day towards the dispensing of valoids, equaloids, and the like. Mr. Mair then went on to speak of the value of the science to the pharmacist. With the object of giving life to the study, he advocated a more general application to the physiological aspects of botany. He thought it was a fault with a majority of text-books, to which Bentley's was no exception, that this important aspect of the subject was inserted as an additional chapter at the end. It was, however, necessary first to learn the "alphabet"; then the facility for reading was unlimited. For this purpose Bentley's work was recommended. The lecture was illustrated by some micro slides, and also by samples of drugs, the botanical characters of which were briefly described. After a discussion a vote of thanks was passed to the lecturer. At the next meeting of the association on Thursday, December 19, a paper entitled "Medicine in Shakespeare" will be read by Mr. William McKay. The annual conversazione and ball will take place on Wednesday, December 18, in Speed's Hall.

GLASGOW.

PATENT-MEDICINE MAKERS are not half bold enough in their headings. Here are a few suggestions for them emanating from a local wit:—Messages of Hope to the Suffering! Consumption Cured while you Wait! Broken Necks Repaired on the Premises! Old Heads Exchanged for New! Livers Cleaned by the Day, Month, or Year! Incurable Complaints taken away by our own Carts daily! Lunatics Restored equal to New! Lost Limbs Recovered on the Shortest Notice! Bad Legs Removed by Weekly Instalments! Artificial Eyes, Ears, and Noses in all the

Latest Fashions! Curved Spines Straightened on the Easy Hire System! Help Yourselves, and Pay at the Door!

THE CHEMISTS' ASSISTANTS' ASSOCIATION met on Wednesday night, when Mr. Colvin Gates read a paper on "The Chemistry of Silver." In this the author submitted a few of the more familiar facts regarding silver, specially mentioning its sources, and speaking of the different alloys used for coinage and making silver plate. Then the various salts were spoken of, the nitrate being considered the most important. In the course of the discussion on this paper it was mentioned that one of the "artful dodges" which detectives use for finding pickpockets is to place a sponge saturated with silver nitrate solution in their pocket, whereby "Nemo me impune lacessit" is illustrated in a manner which the light-fingered gentlemen do not appreciate.

The sub-committee intimated regarding the matter of the library that, through the kindness of several past office-bearers and prominent members of the defunct senior association, who had appended their signatures to a mandate, and the obliging compliance of the Apothecaries' Company, the library had been secured. The bookcase and its contents stood before them a witness to the committee's success, and also to the friendly spirit of the masters towards the association.

Mr. McKellar again brought up his motion, in which he wished the association to express the opinion that the Pharmaceutical Council's action in prosecuting an unqualified assistant for selling poison was contrary to the intention of the Pharmacy Act, and a vexatious interference with trade. In support of his motion Mr. McKellar said that qualified assistants need not hope for permanent improvement in their position if the new doctrine was established, for equalisation was inevitable. Besides, they might be masters in the future, and how would they view the present decision then, when they could fully appreciate the advantage of having unqualified assistance? The motion having been seconded, Mr. Abbot opposed it by moving the previous question. There could be no good in discussing the matter as long as it was *sub judice*, and he maintained that those who were dissatisfied with the Pharmaceutical Council could best alter it by returning proper representatives. Mr. Harley seconded the motion, and Mr. J. P. Gilmour strongly advocated immediate action, even if the Act were capable of the interpretation which had been put upon it. But it was monstrous, he thought, that after such a lapse of time the thing should be enforced. It was here that a Statute of Limitations should apply. He urged that a new Act was wanted, which would place the power to prosecute in the hands of the Government, and which would place surgeries on the same footing as chemists' shops. The debate was continued in a somewhat disjointed way, and on being put to the vote the motion was carried by a majority of two.

MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

WADDINGTON—HEAP.—On December 7, at St. Peter's Church, Ashton-under-Lyne, by the Rev. J. M. Mozell, Mr. W. T. Waddington, of Foxton Place, to Bertha, eldest daughter of Mr. H. Heap, chemist, Chester Square, Ashton-under-Lyne.

DEATHS.

BODEN.—On November 27, Mr. William Boden, chemist and druggist, Exmouth Villas, Teddington. Aged 56.

BONNY.—On November 21, Mr. John Bonny, chemist and druggist, Market Street, Blackpool, Lancs. Aged 43.

FRANK.—On November 27, Mr. John Mead Frank, chemist and druggist, late of Shaw Street, Liverpool. Aged 50.

MAJOR.—On December 5, at St. Leonards-on-Sea, William Wreford Major, of Percy Lodge, East Sheen, and 40 Mincing Lane, of the firm of James Cook & Co. Aged 59.

HONEY.—Amthorn and Stern have found dextrin in unquestionably pure honey.

General and Provincial News.

EARLY CLOSING.—The chemists of Knaresborough have decided for the future to open their shops at eight in the morning, and close at seven in the evening, except on Saturdays, when they will keep open as usual till 10 P.M. This rule came into operation on December 2.

A NEW DANISH PHARMACOPŒIA is now on the stocks. A commission has been appointed to prepare it, consisting of three doctors of medicine, two of whom hold professorial rank, one professor of a non-medical science, and three pharmacists. In order to harmonise the text of the new Pharmacopœia as much as possible with that of those of the other Scandinavian nations, delegates from Sweden and Norway have been invited to assist in the preparation of the groundwork.

SELF-DOCTORING.—On Tuesday, December 3, the Deputy Coroner for Buckinghamshire held an inquest at Stantonbury on the body of John Russell, who died the previous Sunday from caustic poisoning. Russell had been at home ill, having met with an accident at the Wolverton Works, where he was employed. He was also troubled with ulcers on the tongue, and being accustomed to doctor himself he applied some lunar caustic to the ulcers for the purpose of burning them out. By some accident he swallowed a quantity of the caustic, and although medical attendance was at once procured, he died in great agony on Sunday morning. A verdict was returned of "Death by misadventure."

SACCHARIN IN BELGIUM.—Some time ago a heavy import duty of 140 francs per kilo., practically amounting to prohibition, was placed upon saccharin in Belgium, in the supposed interest of the sugar industry. It is now discovered, however, that this law is quite inoperative, the consumption of the sweetener being noticeably on the increase and the article being freely obtainable from a number of dealers, while yet not a single ounce has passed the custom-houses since the promulgation of the new law, and no instances of smuggling have been traced. The explanation is now given that in the preparation of commercial saccharin the process is one of seven distinct stages. The product of the sixth stage is quite different from saccharin in physical and chemical properties, and to it consequently the duty cannot be applied. In this state it is imported into Belgium, and across its frontier it is subjected to the final process—a simple treatment with an acid, which converts it into the commercial article.

THE CHEMICAL TRADE OF GERMANY.—The American Consul at Mannheim, in a recent report, states that Germany exports to all parts of the world all kinds of drugs and chemicals in a finished state. Last year about 233 million marks' worth of raw material was exported, and 236 millions' worth of manufactured chemicals was exported from Germany. This branch of trade forms 7 per cent. of the total trade of the empire. The raw materials imported included medicinal drugs, resins, pitches, and tanning stuffs, while the exports were composed of bases, acids, salts, ether, oils, medicines, perfumeries, colours, &c. The Consul says that the Germans are labouring with ceaseless energy to get the command of this profitable and important branch of commerce. Time, money, and energy are expended in ever-repeated efforts to beat others and secure new discoveries. In Mannheim and the adjacent towns "a large number of skilful chemists are constantly employed producing and experimenting. The gold-mines of an El Dorado or the silver ones of Colorado are not richer in yielding wealth than the laboratories of these establishments. Their alembics yield more wealth than the necromancers of the middle ages dreamed of getting from theirs."

RAILWAY RATES INQUIRY.—During the past week Mr. Frederick Harrison, chief goods manager of the London and North-Western Railway, was cross-examined at considerable length by Mr. Balfour Browne, Q.C., on behalf of the London Chamber of Commerce and the traders generally. He admitted that in numerous cases the Clearing-house classification in relation to chemicals had not been adopted in the new schedule. In other cases specific articles had been classified, although they were not mentioned in the

Company's Acts of Parliament, and should therefore be charged at the highest rates the company are empowered by statute to charge. For instance, there was no statutory mention of carbonate of zinc, but the company propose to include that article in Class B, which was the class in which it appeared in the Clearing-house classification. Under the statutory powers of the company, "antimony waste" could be charged the highest rates, but it was intended to adopt the Clearing-house classification, and include that article in "Mineral Class B." "Dye extracts" appeared in Class 3 in the Clearing-house classification, and that classification would be retained. It was not intended to impose the highest rate upon all articles that were unspecified, although in the revised schedules they would come under the provision for the imposition of the highest rates. Lord Balfour of Burleigh intimated that the Court would certainly not consent to any proposition that unspecified articles were to appear in Class 5 as a matter of course.

On Wednesday Mr. Harrison was cross-examined by Mr. Poyser, on behalf of the Chemical Manure Manufacturers' Association, with a view to show that the proposed classification would injuriously affect the trade, and would sanction the imposition of higher rates than were charged at present. The proposal was to charge 2½d. per ton per mile for lime, limestone, compost, and all sorts of manures, for distances under 50 miles, and 1½d. per mile for distances beyond 50 miles. In most of their acts the maximum was not to exceed 1½d. a ton per mile, but he maintained that the new classification had been amended in order to include artificial and chemical manures in a lower class. Speaking generally, he should say that in many instances the company did not charge for artificial manures up to their statutory powers. The maximum in the proposed classification was 3s. 9d. for 40 miles; 5s. 7½d. for 60 miles; and 9s. 4½d. for 100 miles, exclusive of terminals. The terminal charge varied according to the circumstances of the case and the accommodation actually provided. In London the terminal charges always amounted to more than 2s. per ton. The charges for packed manures from Widnes were higher than those for unpacked manures. Different manures were being invented day by day, and required different treatment. In some respects it was of advantage to deal with packed manures, but in others it was not. It was necessary, for instance, to protect packed manures from damage, or from damaging other goods. No doubt they could be more easily handled and would do less injury to the trucks, but he did not think it would be reasonable to reduce packed manures to class B. The value was higher, which was a serious element when the question of compensation for accident or damage arose.

Mr. Poyser asked if the witness would furnish a table giving the instances in which compensation for damage to chemical manures had been awarded during the last three years.

Mr. Harrison said that such a return could be supplied, but, seeing that the claims for compensation generally amounted, roughly speaking, to between 10,000 and 15,000 a year, it would involve a great amount of trouble and labour, with a very inadequate result.

Mr. Poyser: Allow me to mention one firm—that of Messrs. Lawes, of Mark Lane. Their warehouse is at Poplar, and their goods are conveyed to and from Camden Town. Are you aware that, although they were charged 450% for the conveyance of their traffic in 1888, and have paid 480% this year, there has not been a single claim for compensation?

Lord Balfour of Burleigh here interposed, and said that it would be unfair to require the London and North-Western Company to provide the return asked for, as it would involve an amount of labour which he did not think the company ought to be asked to undertake; and if allowed in the instance of one trader, the same information could not well be refused in regard to another.

THERE are only 514 dentists in Germany to about 47,000,000 inhabitants. Either the Teutonic teeth are very good, or there is room for some of the latent energy which British dentists have so much of that they propose to employ some of it by getting a dentist attached to Board Schools. It seems that the children's teeth are so bad that education in our schools is retarded thereby.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

THE DENGUE FEVER.—An epidemic of influenza, or "grippe," has broken out among the sales men and women of the Magasins du Louvre and the Post-office employés. Other cases are also reported in several families. So far, if it is the Russian dengue, or what in Florida is known as "creek-bone fever," it is but a very mild form of the affection.

THE COST OF A MISTAKE.—M. Babilie, a pharmacist at Bordeaux, and M. Gelie, his assistant, last week appeared before the Correctional Tribunal, the assistant charged with homicide through imprudence, and the principal as civilly responsible for the damages. The mistake made by the assistant consisted in dispensing morphine hydrochlorate instead of the same salt of ammonia in a mixture intended for a two-year old boy. The patient died in consequence. The sentence was, for M. Gelie, fifteen days' imprisonment and 200*fr.* fine, and, for the two, principal and assistant jointly, 5,000*fr.* damages to the deceased's family.

CHAULMOOGRA PLANTS have, it seems, been successfully introduced at Réunion by the director of the Botanical Gardens. The trees are reported to be very difficult to propagate, and still more so to transplant. Hence the comparatively limited area over which they are found, notwithstanding the great medicinal value of the oil extracted from the seeds. Chaulmoogra oil is probably the only known remedy that will—not cure leprosy—but alleviate it, and it is to this object that the plant owes its introduction in the Réunion island. At the Exhibition, in a corner of the Colonial building, M. Potier, a pharmacist of the place, had by the side of the plain oil specimens of chaulmoogra soap made therefrom for the convenience of application in leprosy, and skin diseases in general.

IODOFORM DIRECT FROM SEAWEED.—There has been started recently at Poterie-de-Belbeuf, Rouen, the manufacture of iodoform direct from the waters of lixiviation from varech. The clear desulphurised solution is thoroughly beaten with mechanical agitators after the addition of a certain proportion of caustic soda, and the iodides are transformed into iodoform by adding acetone and hypochlorite of soda. The iodoform which is precipitated is washed, dried, and crystallised from alcohol or other suitable liquid. It is maintained that the persistent and disagreeable odour of iodoform is due to the use of alcohol in its manufacture, iodine being liberated, and rendering possible the formation of iodised organic bodies as by-products which are of strong odour. Acetone-iodoform is made without the liberation of iodine, and can be produced in very dilute solutions, both conditions being highly favourable to the production of an absolute and inodorous iodoform.

SPECIFIC GRAVITY OF FLUORINE.—At the Academy of Sciences sitting of December 2 Professor Troost read a memoir by M. Moissan on the direct determination of fluorine's density, and showed at the same time the new apparatus employed therefor. The gas is isolated, according to M. Moissan's process, by the electrolysis of anhydrous hydrofluoric acid held in a U-shaped platinum tube cooled by means of methyl-chloride to -50°C . (58 below zero, Fahr.). Although hydrofluoric acid is much less volatile than fluorine, to remove all traces of the acid liable to be mechanically carried off the gas is first passed through a platinum spherical cooler kept at -50°C ., and through a platinum tube filled with sodium-fluoride fragments, which will absorb all free hydrofluoric acid. Next the gas is slowly introduced into a platinum sp. gr. flask filled with dry nitrogen, which it displaces owing to its superior density. And, finally, the sp. gr. having been observed by direct weighing, the figures are corrected by ascertaining by analysis the quantity of nitrogen left in with the fluorine. The numbers so far obtained were 1.262 and 1.270, or somewhat less than the theoretical figures calculated from fluorine compounds. The discrepancy, M. Moissan suspects, is possibly owing to some inaccuracy in the equivalent adopted for fluorine, and to set this point right will be the object of future investigations.

URIC ACID ESTIMATION.—A simple and efficient method of estimating uric acid has been devised by Drs. Arthaud and Batte to supersede the processes generally employed, which they find either unreliable or too complicated. The reagent is to be made as follows:—

	Grammes
Sulphate of copper	1.484
Hyposulphite of soda	27.00
Rochelle salt	40.00
Distilled water, sufficient for 1 litre.	

The effect of the hyposulphite is to turn the cupric into a cuprous salt, the excess of hyposulphite serving to prevent re-oxidation. The Rochelle salt tends to make the reagent more stable, and to hinder the formation of a sulphide. According to calculation 1.484 gramme of the copper salt will precipitate 1 gramme of uric acid. Hence each cc. of the reagent will throw down 1 milligramme of the acid. The test is applied as follows. The phosphates of the urine having been separated by means of soda carbonate in excess, 20 cc. of the filtered liquid are taken, and transferred to a beaker. The reagent is now added from a graduated burette, with the usual precautions, and when the curdy, whitish precipitate ceases to form, note is taken of the quantity employed. The test will show as little as 2 milligrammes in 100 cc. of distilled water.

BRITISH PHARMACEUTICAL CONFERENCE.

A MEETING of the Executive Committee was held on Wednesday, the 4th inst., at 17 Bloomsbury Square, at 4.30 P.M.

Present: Mr. Carteighe, in the chair, [Messrs. Atkins, Gerrard, Holmes, Martin, Professors Attfield and Green, Mr. Martindale (Hon. Treasurer), and Mr. W. A. H. Naylor (Hon. General Secretary). The minutes of the previous meeting were read and confirmed.

The Chairman moved the resolution standing in his name: "That Mr. F. Ransom, F.C.S., (Hitchin), be appointed an Hon. General Secretary of the Conference." In speaking to the resolution, he reminded the members that Mr. Ransom had already done good work in pharmacy, that he was loyal to the Conference, and that he had the business ability and could give the time requisite for the fulfilment of the duties that the secretaryship demands. He had great pleasure, therefore, in moving that he be appointed.

Dr. Attfield, in seconding the motion, referred to his progressive career from the scientific side, and Messrs. Atkins and Martin congratulated the Conference on his willingness to serve.

The motion was then put, and carried unanimously.

The next business discussed had reference to the forthcoming edition of the "Year-book." Mr. Naylor stated that the final proofs had been passed by him, and that copies of the volume would be ready for distribution by the end of the year.

The receipt of the following donation was announced: "Proceedings of the New York State Pharmaceutical Association, 1889."

Mr. Joseph Barker, of Nottingham, was elected to membership.

THE CULTIVATION OF JALAP IN INDIA.—From the annual report of the Botanical Gardens at Massorec in British India, it appears that another method of cultivation has been adopted there recently which is expected to yield a large increase in the output. The requirements of the Indian Medical Department for the drug are heavy, and it is useless thinking of offering it for issue until there is a large reserve on hand. The Bengal depôts alone say they can absorb 1,200 lbs. of the dried tubers annually, and as they lose five-sixths of their weight in the process of drying, this will require six times the above weight for one season's supply, or in other words, 7,200 lbs. of green tubers annually. It is therefore estimated that, in order to keep up a continued supply of the drug after once beginning to issue it, there should be a stock of 21,000 lbs. of green tubers. This will allow of a third of the stock for issue, and two-thirds to propagate from for future issues.

Pharmaceutical Society of Great Britain.

A RESEARCH LABORATORY NIGHT.

WEDNESDAY evening was principally devoted to a communication from the research laboratory—probably the first, and certainly the most important, communication of commercial interest which has yet come from that quarter. The attendance was not in keeping with the merits of the programme. Forty, or thereabouts, comprised the total, and two-thirds of that number were students. Still there were a few men of note present, such as Sir Dyce Duckworth, Mr. Reginald Harrison, the eminent surgeon who has lately come to London from Liverpool, Mr. T. B. Groves, of Weymouth, Mr. C. Umney, Mr. C. Ekin, Mr. W. Martindale, Mr. A. H. Mason, Mr. John Moss, and several examiners, but few of the Councillors. The research laboratory communication was on

A BELLADONNA SUBSTITUTE,

the rhizome of *Scopolia carniolica*, *Jegu.*, and half a dozen persons had been engaged in the research, the result being as many papers. We shall put them into one. The first was "Introductory," by Professor Dunstan. The gist of it was given in the opening sentence, "How we came to examine this drug." That was because, eighteen months ago, when belladonna was scarce and dear (it is so still) it was offered to Mr. Ransom under the name of "belladonna scopolia," as a substitute. It came from the Carpathian mountains, and was said to possess mydriatic properties. The rest of the introduction is told in what follows.

The *Chemistry of the Drug* was the subject of the second paper, and had been investigated by Professor Dunstan and Mr. A. E. Chaston. It may be mentioned here that other species of scopolia are known. *S. Japonica* yields "Japanese belladonna root," which has been investigated by Eykman, who isolated an active principle which he called scopoleine, but this was found by E. Schmidt to be a mixture of atropine, hyoscyamine, and hyoscyne. This was so much to go upon, and the authors took advantage of it by working direct for the alkaloid by treating the powdered root by percolation with alcohol and evaporating the percolate to extract consistency. This they treated successively with dilute hydrochloric acid, chloroform, ammonia and chloroform by the regulation methods, the alkaloidal residue being finally crystallised from anhydrous ether until it was obtained of a constant melting-point—108.5° C.—which closely corresponds with the approved figure for hyoscyamine. The yield was exactly 0.5 per cent., and it was proved that no other alkaloid was present. Professor Dunstan proceeded from this point to explain to the meeting how he and his coadjutor, by the employment of fractional crystallisation of the alkaloidal aurochloride, sought to place beyond doubt their conclusion that they were dealing solely with hyoscyamine; but we shall spare our readers this precise portion of the communication, and may say briefly that the object of the laborious crystallisation and melting-point determinations was to show that not a trace of hyoscyne or atropine was associated with the hyoscyamine; and the authors thought that if those who have investigated other atropaceous drugs had been equally careful in their manipulations, they might have found that nothing but hyoscyamine does exist in them. In addition to alkaloid the authors isolated from the root 0.1 per cent. of cholesterin (which they have also found in belladonna root), some fat—the examination of which is not completed, but it appears to be arachic acid—and two other constituents, viz., a crystalline sugar and a fluorescent substance which seems to be identical with the scopoletin found by Schmidt in the root of *S. Japonica*, and which is identical with the methyleseculin of belladonna root.

The *Pharmacy of the Drug* was the subject of Mr. Francis Ransom's paper. He mentioned that Mr. Richard Reynolds, of Leeds, has grown the plant in his garden for some years. Then he proceeded to tell the meeting that the root can be assayed by Dunstan and Ransom's method for belladonna. So treating it, he had found 0.54 per cent. of alkaloid in root from Arabia and 0.51 per cent. in German root. Belladonna root contains from

0.35 to 0.39 per cent. of alkaloid. It would seem, therefore, that scopolia is a medicinal agent of considerable value, and specially adapted for galenical preparations of standard strength, which might be used in place of belladonna preparations. Such was Mr. Ransom's conclusion. He then told the meeting how to make the preparations. The best menstruum is a mixture of 4 parts S.V.R. and 1 part water. The solid extract should be standardised to 2 per cent. alkaloid, the liquid extract to 0.25 (this being well adapted for making the liniment and the tincture). Plaster and ointment can also be made by formulæ corresponding to those for the belladonna preparations.

The *Therapeutic Action* of the preparations naturally followed. Sir Dyce Duckworth, M.D., was the contributor in this department. His paper was half preface, half practical information. The preface was very entertaining. Sir Dyce began by telling the meeting that he is not much given to experimental therapeutics, for he is so conservative that he prefers to exercise his art with old and commonly approved remedies. Moreover, in his clinical teaching he strongly inculcates humanity in dealing with cases. He does not think that because a patient is an hospital patient these rules should be less rigidly adhered to, for he holds to the principle that the modern physician is not called upon to treat diseases, but patients suffering from diseases. Although the meeting appeared to appreciate fully these forcibly expressed humanitarian views, it did not quite appear why Sir Dyce should have given expression to them there; but a reason seemed to be given in what followed. The medical knight abhors "the cheap press," and ignores it. [What is the cheap press? by the way.] Why? Because this press criticises—ignorantly criticises—what goes on in hospitals. He, therefore, avoids such comment by never experimenting, but by sticking to proved remedies. Still, if we are to gain knowledge of new remedies, if we are to use all means in our power to combat disease, we must try the remedies, and the modern way of doing it—viz., by physiological experiments on animals, and then clinically—is surely better than the old way of putting every patient in a ward under the influence of the drug, and collecting the results. Research, although it may show results contrary to preconceived ideas, is not lost (Sir Dyce Duckworth proceeded to say). He was in full sympathy with the experiments which were going on in the Society's laboratory, and wished it success. He greatly regretted that legitimate physiological experiment was so impeded by Government regulations that British physiologists have to depend upon researches in other countries for their facts. Thereby they have become "the laughing-stock of scientific Europe"; and, it may well be imagined, Sir Dyce had no pretty things to say of the anti-vivisectionists who have brought this about—one of his cruellest remarks being to the effect that, much as anti-vivisectionists object to experimental physiology and therapeutics, they are ready enough to take advantage of the knowledge which is so acquired.

He then proceeded to give particulars of the cases in which the new drug was tried in the place of belladonna. It proved an efficient anhydrotic, checking sweating as well as belladonna, without producing dryness of the mouth or dilatation of the pupil. Applied locally it proved an effectual anodyne, affording relief in a case of enlargement of the glands of the groin, while in other cases, in which the patients were recovering from rheumatic fever and were troubled with painful wrists, the scopolia liniment acted better than belladonna liniment. The plaster also relieved heart-pain in the case of a girl suffering from chlorosis. On the whole he thought that the new drug deserved a place in therapeutics, especially if, as he learnt, it could be obtained cheaper than belladonna, the high price of belladonna liniment being one of the greatest objections to its use by poor people.

The *Natural History of the Drug*.—Mr. E. M. Holmes had undertaken this department of the subject. He showed that the plant was first described by Mattioli—an Italian botanist—as "*Solanum somniferum alterum*." This was in 1563; and from that time to 1837, when G. Don gave it as *Scopolia carniolica*, the plant had been known by various names. Dr. Scopoli, in 1764, had paid some attention to it, and it was in honour of that botanist that Jecquin founded the genus *Scopola*. Mr. Holmes proceeded to show why this old name of the genus should take the place of the name "*scopolia*,"

which has been adopted in the "Genera Plantarum." He then told the meeting that the plant grows in Eastern Germany and Hungary, and extends to Southern Russia. It was from the Carpathian Mountains district that the drug under examination was obtained. The plant resembles belladonna in many respects, but is not so tall or robust. It grows best in damp soil, in the shade. Its root is a rhizome—not a root-stock, as belladonna is. Its leaves are larger, but thinner and greener. The flower is like that of belladonna, but the fruit more resembles henbane fruit. It flowers in March and April. There is very little difference botanically between it and *S. Japonica*. A herbarium specimen of that plant was on show—the only specimen in this country, Mr. Holmes having obtained it from a Russian professor—and the close similarity between the two kinds was forcibly explained. Then Mr. Holmes spoke of the rare garden plant, *S. Hladnikiana* (so given, not *S. Hadruckiana*, as generally written), with its green flowers, and *S. viridifolia*, with its yellow flowers.

Histological Structure.—Mr. Thomas Greenish gave a lucid account of his microscopic work on belladonna root and scopola root. They are very much alike; the latter being, if anything, more delicate in structure than belladonna. Both possess characteristic bundles of raphides (calcium oxalate), which differ from the isolated crystals shown by henbane and stramonium.

DISCUSSION.

Mr. T. B. GROVES trusted that a result of this investigation would be that scopola root would prove a reliable source for hyoscyamine, which is somewhat difficult to get in a pure state. He asked Sir Dyce Duckworth if he had found the drug to possess similar properties to hyoscyamine.

Mr. JOHN MOSS pointed out that Will had shown that hyoscyamine and hyoscyne are changed under the influence of alkali into atropine. Professor Dunstan had used ammonia in isolating the alkaloid of scopola—how then did it come about that only pure hyoscyamine was obtained in this research? Was not ammonia an alkali? He highly complimented the workers on the outcome of their research. It was just such work as this that the research laboratory of the Pharmaceutical Society could undertake.

Mr. REGINALD HARRISON said he understood from Sir Dyce Duckworth's remarks that scopola did not produce dryness of the mouth. As this was one of the most unpleasant symptoms of belladonna, he thought that scopola would prove to be a drug of greater value than belladonna.

Sir DYCE DUCKWORTH, replying to Mr. Groves, said he had steered on the belladonna track, so that he had not the opportunity of testing the effects of scopola as a sedative in such cases as henbane would be employed. He confirmed his previous remark that scopola does not produce dryness of the mouth.

Professor DUNSTAN also replied, stating that he had very grave doubts about the existence of atropine and hyoscyne in belladonna and other drugs. It was also doubtful if anyone had really worked on pure atropine, the commercial product being a mixture of atropine, hyoscyne, and hyoscyamine. Will spoke of "fixed alkali," which did not mean ammonia, but in regard to Will's investigation he pointed out that Ladenburg has proved some of the conclusions to be incorrect.

The PRESIDENT moved a vote of thanks to the contributors, speaking at the same time of the importance and value of the work done.

The next paper was

ON THE ROOT BARK OF EUONYMUS (WAHOO), AND ON EUONYMIN.

By W. A. H. Naylor, F.I.C., F.C.S., and E. M. Chaplin, F.C.S.

This dealt with a continuation of the work previously reported on to the British Pharmaceutical Conference (THE CHEMIST AND DRUGGIST, September 14, p. 367). The glucosidal body then referred to as atropurpurin has since been subjected to purification, and it turns out to be *dulcitol*, $C_6H_{12}(OH)_6$, an isomer of mannitol. In September the authors were doubtful as to their "euonymin" (an uncrystallisable yellow resin) being the same as Romm's, but they have since found that it is identical. They next proceeded to give the results of the examination of commercial

euonymin. Six samples showed great differences in their properties; thus the water soluble portions varied from 14 to 55 per cent., proof spirit portions from 2 to 12 per cent., and rectified spirit portions from 1 to 14 per cent. Moreover, insoluble matter varied much as to quantity, and one contained 30 per cent. of barium carbonate, and alumina, iron, and calcium were found in others. They pointed out that this want of uniformity is not favourable to the use of euonymin, and also showed from personal experience that water does not extract from Wahoo bark any of the purgative principle, aqueous decoctions being quite inert. The best menstruum for the drug is a mixture of S.V.R. 4 parts, and water 1 part; and the best preparation is a 1-in-1 fluid extract, the dose of which is 15 to 60 minims. The bark should be freed from its water-soluble material and dried before it is treated with the spirit.

The speakers on this subject (Mr. Martindale, Mr. Holmes, and Mr. Carteighe) complimented the workers, and made some general remarks on Wahoo bark and euonymin: their opinion being that the proposed liquid extract would meet the objections to euonymin.

CALAMINE.

Mr. W. MURTON HOLMES (a pharmacist in business at 7 Belgrave Mansions, S.W.) had what appeared to be a very complete paper on calamine, but he had only time to read a bit of it here and there, so that it was not possible for the meeting to get a true idea of the value of the paper. But the object which Mr. Holmes had in view was to get calamine which corresponded to the B.P. characters and tests, and would be of the colour which skin-doctors want. He did not succeed in the first search. Calamine ore from Derby contained only 60 per cent. of matter soluble in hydrochloric acid, the rest being barium sulphate; Italian ore contains from 20 to 60 per cent. of soluble matter; and Grecian ore contains 63 per cent. of zinc, but it is too dark for calamine. The Derby and Italian ores make very good calamine when roasted, powdered, and prepared by elutriation. Mr. Holmes urged that in the next edition of the British Pharmacopœia the source of the calamine should be stated, also its percentage of zinc, and some guide should be given as to its colour when wet.

Mr. CARTEIGHE opened the discussion with a long speech, in which he strongly condemned calamine. He maintained that it is an obsolete remedy; that the commercial article is a mixture; that precipitated carbonate of zinc and oxide of zinc are far better as topical applications, not being so hard, and he thought the time has come for expunging it from the Pharmacopœia.

Sir DYCE DUCKWORTH expressed similar opinions in less combative style.

Mr. MARTINDALE thought that there was something real in calamine, else it would not be preferred by eminent dermatologists. It adhered a little better to the skin, perhaps because of its fine state of division.

Mr. CARTEIGHE contended that it did not adhere so well, also that it was much harder than the oxide and carbonate, and would rather irritate the skin than soothe it. There was only one dermatologist who recommended it.

Mr. T. B. GROVES thought the President overlooked the fact that the reputation of calamine had been acquired by centuries of use, and that was a factor which could not be set aside easily. It showed that there must be some advantage in calamine.

The Curator then described the specimens which were exhibited, after which the meeting adjourned until February.

A GOOD test for glycerine in soap is to treat the substance with a little pyrogalllic acid and a few drops of dilute sulphuric acid, and boil, when the mixture will turn red. Now add a little stannous chloride, and a beautiful violet red is produced.

FRANGIPANNI is said to have originated with a famous Italian botanist of that name in 1493, who delighted all with his wonderfully-compounded perfume. At length the recipe reached a London perfumer, since deceased, who popularised it the world over. This original recipe is in the hands of but two perfumers—a London house and a New York one; so the latter says.

Pharmaceutical Society of Ireland.

THE monthly meeting of the Council was held on December 4, at 11 Harcourt Street, Dublin, at three o'clock. Present: Mr Charles Evans (president) in the chair, Mr. Wells (vice-president), Messrs. McCormack, Merrin, Beggs, Hodgson (treasurer), Hayes, Dr. Burnes, and Professor Tichborne.

CORRESPONDENCE.

Letters were read from Mr. F. W. Smith, Registrar of the Pharmacy Board of New Zealand, acknowledging receipt of a copy of the Society's Calendar for 1889; from Messrs. H. C. Draper, S. Tweedy, and Dr. Whitla, returning thanks for their election as examiners; from Dr. Burnes, acknowledging the intimation of his election to a seat on the Council; from Mr. J. T. Watterson, acknowledging receipt of letter from the Registrar in reply to his former communication; from Mr. J. J. Sewell, requesting that his name should be struck off the list of members of the Society; from Mr. N. W. Hatton, a member of the Society, who had gone to reside in Dorchester, forwarding his subscription for 1889 and 1890; from Mr. William Cooper, Newbold, requesting that his name might be replaced on the register; and from Mr. John Scanlan, of 6 Longford Road, Cork, applying to be placed on the preliminary register, and enclosing University certificates.

In reply to these communications, Mr. Ferrall was directed to express the Council's regret at Mr. Sewell's resignation, and ask him to reconsider it; to thank Mr. Hatton; to restore Mr. Cooper's name on payment of the guinea fee required by the Society's rules; and to inform Mr. Scanlan that the Council had not power to accept the certificates which he had forwarded, as they did not include all the subjects required by the General Medical Council.

THE 100 HOURS' CHEMISTRY COURSE.

A letter was read from Mr. Patrick Kelly, a member of the Society with reference to the 100 hours' chemistry course. The writer urged that the resolution adopting that course was only carried by the casting vote of the chairman. In the discussion on it the mover had stated that the schools could arrange days and hours to suit the students; but the schools were now closed against them altogether, except in the day, and on payment of a double fee. What employer could allow his assistant out for three hours in the day, even on three days of the week? And even if a night school should be opened, it would be hard on a young man whose ordinary work was from perhaps nine in the morning until ten at night to have to spend three hours on three evenings of the week in an atmosphere of sulphuretted hydrogen. The late President, in his address of October, 1888, had attributed the smaller percentage of failures (from 50 to 33 per cent.) to the 100 hours' system. But the system had only been compulsory from the July of 1888, and the candidates at the July examination had previously taken out their chemistry. He wrote to the President, pointing out his mistake; and the President acknowledged the letter but did not correct his statement. Now, in 1889, after the system had come into full work, according to the President's address of October last, the failures during the year had been 46 per cent. So much for the 100 hours' system. In conclusion, the writer submitted that the Council should leave the safety of the public in the hands of the examiners.

Mr. HAYES supported the writer's views, and said if the Council could with a good grace withdraw from their rule, he believed it would be beneficial to the Society, for the effect at present was to prevent young men who could not put in the 100 hours from presenting themselves for examination.

Mr. HODGSON stated that at the time the rule in question was under discussion he asked two or three persons who were authorities on the subject of chemistry what period of study was requisite in order to give the student such a knowledge of chemistry as would make him a good and safe compounder, and all were of opinion that 100 hours was not excessive; one was in favour of a longer period. If the Council were to reduce that now, it might lead to the impression that they wanted to lower the standard of educa-

tion, which was not their desire. The change had been only recently made, and had been approved by the Privy Council, and if they were to seek to alter it so soon, the impression would be produced that they were not stable.

Mr. MERRIN said he thought too much importance was attached to the chemistry lectures, and not sufficient importance to those on pharmacy. He would like to see the pharmacy examinations far stiffer than they were. He could not see the importance of so much chemistry at all. It did not turn up at the compounder's counter.

The VICE-PRESIDENT suggested that the report of the committee to whom a former letter of Mr. Kelly's had been referred, and also a motion of Mr. McCormack on the subject of the establishment of a night school of chemistry in connection with the Society, should be considered now.

The report was read. It stated that the committee consisted of the President, the Vice-President, Professor Tichborne, Mr. Hodgson, Mr. McCormack, Mr. Beggs, and Mr. Merrin. They resolved to address a letter to the Board of the Apothecaries' Hall, asking them whether they could place their class-room and chemical benches at the disposal of the Society for the purpose of holding evening classes for instruction in chemistry and pharmacy, and on what terms.

The VICE-PRESIDENT said the committee were impressed by the consideration that the 100 hours' rule had been only recently passed into law, and had, in fact, hardly come into action yet, as only a few certificates under it had been presented up to the present. It was nonsense, therefore, to say that it had been a failure. Give it a chance, and if they should afterwards find that the candidates could not get 100 hours, they could reduce the number of hours. But the Council were now trying to establish a school that would meet the requirements of their students; and if they should succeed in doing so he did not see what difficulty there would be in getting the 100 hours. He was informed that there was a school in Dublin at present that was well suited for their purposes. If they were now to change a system which they only adopted twelve months ago, it would look as if they did not know their own minds.

Mr. MERRIN said the Ledwich and Carmichael night schools, which were then open, were now closed.

The VICE-PRESIDENT: Two members of the Council were sent to examine the technical school, which is now in existence, for the purpose of seeing whether it would meet our requirements, and they have reported that it would.

Mr. MERRIN: Did we represent to the authorities of that school what we require?

The VICE-PRESIDENT: They applied to us in the first instance, and we sent the two members to inspect the school. They reported to us that certain things were necessary, and that the school authorities were prepared to meet us in every way—in fact, guaranteed that our requirements would be carried out.

Mr. MERRIN: Has that school been added to the list of those whose certificates we receive?

The VICE-PRESIDENT: It has.

Mr. MERRIN said that, according to present arrangements at that school, students there would be able to get only one hour a week.

Dr. BURNES: The practical work there covers more than one hour a week. I sent one of my young men there to make inquiries, intending to pay his fees; and they said they would be able to give the 100 hours in three months—certainly during the winter session.

The PRESIDENT: Night work?

Dr. BURNES: Night work.

Mr. HAYES: That is exactly what we want.

Mr. HAYES moved that the report of the committee be adopted; that the subject of evening classes be referred back to the committee; and that the subject of Mr. Kelly's letter be deferred for the present. They might continue the existing system for twelve months; and if they should then find it to be impracticable, they could reasonably go before the Privy Council and say that the thing had broken down and required to be readjusted.

Dr. Burnes seconded the motion, which was unanimously agreed to.

A HOUSE COMMITTEE.

On the suggestion of the Vice-President, Messrs. Hodgson, Hayes, Grindley, McNaught, Beggs, McCormack, and Pro-

fessor Tichborne were appointed a House and General Purposes Committee for the present year.

A report from the Law Committee was adopted.

THE DRUGGISTS AND THE SOLICITOR-GENERAL.

The VICE-PRESIDENT called attention to a report which appeared in THE CHEMIST AND DRUGGIST of November 9, of what took place on the occasion of a deputation from the Druggists' Society waiting on the Solicitor-General for Ireland in reference to a Pharmacy Bill. A number of statements were made on that occasion which were absolutely untrue. Of course, they might not have a full account of what was said, but the statements that appeared in the report were certainly contrary to the fact. At first he thought that it would be better to take no notice of these statements, but he afterwards came to the conclusion that passing them over would look as if they were indifferent to the interests of the licentiates. It was stated that—"In 1888 a measure was brought before the House of Lords, referred to a Select Committee, and subsequently brought on to the House of Commons, where it was so unanimously rejected that not one member could be found to propose its adoption." How any man in his senses could have made a statement like that he was unable to understand. They all knew that the Bill went to the House of Commons, was read twice there unanimously, and referred to a Select Committee. Yet they were told that it met with such opposition in the House of Commons that a member could not be got to propose it. The report proceeded—"Amendments were afterwards brought forward by different members of Parliament embracing the requirements of the traders throughout the country; and so strong was the feeling on the subject that the pharmaceutical party felt it impossible to do aught but yield to public opinion, and, through the agency of their President, came to an agreement with the chemists and druggists to adopt the provisions of the amendments; and the Bill being thus revised would certainly have become law but for the session being almost ended, owing to which the amended Bill was slaughtered with a number of other innocents." He (the Vice-President) was not aware that their Bill was at any time in the House of Commons when there was not present a member to propose it; but if it did come to such a position in the House of Commons, it was after it had become the druggists' Bill, and not while it was the Bill of the Pharmaceutical Society. They were all glad that the amended Bill did not pass; and there were members of the House of Commons prepared to oppose it. He therefore moved—

That the report in THE CHEMIST AND DRUGGIST of November 9 of a deputation from the Druggists' Society having waited on the solicitor-general in reference to a Pharmacy Bill be referred to the Law Committee to report to the Council on.

Mr. McCormack seconded the motion.

Mr. HODGSON said it was desirable that the Law Committee should communicate with Messrs. Clay & Close in London as to what passed in connection with the Bill.

The VICE-PRESIDENT: Do you know, Mr. Hayes, was it the case that we had no member ready to propose the Bill when it came on in the House of Commons?

Mr. HAYES: The member who was to have proposed it was not there, and it was taken up by someone else.

Mr. BEGGS: Sir James Corry was to have proposed it, but he was not present. That was the amended Bill.

The VICE-PRESIDENT: The Bill that was so well cut up that we were glad that it did not pass.

Professor TICHBORNE: The Bill that left the House of Commons did not resemble the original Bill as promoted by this Society at all.

Mr. HAYES: Our original Bill passed the House of Lords, and was read a second time in the House of Commons.

The resolution passed unanimously.

NEW MEMBERS.

On the motion of the Vice-President, seconded by the President, Mr. William Hanna, of Main Street, Bangor, co. Down; Mr. Charles Marshall, of 39 Hamilton Street, Belfast; and Mr. John Smiley Anderson, of 47 Market Square, Lisburn, were elected members of the Society.

On the motion of Mr. Baxter, seconded by Mr. Doran,

Mr. W. H. J. Madden, of 2 Gloucesterville, Fitzroy Avenue, Belfast, was elected a member of the Society.

On the motion of Mr. Whitla, seconded by the Vice-President, Mr. E. P. Murray, of Clones, co. Monaghan, was elected a member of the Society.

On the motion of Mr. McCormack, seconded by the Vice-President, Mr. Thomas William Robinson, of 112 Upper Georges Street, Kingstown, was elected a member of the Society.

Some financial business having been disposed of, the Council adjourned.

HORSE BALLS.

THE following formulæ are contributed by a pharmacist of wide experience, and we print them as supplementary to the treatise on "Physic Balls" which will be found in THE CHEMISTS' AND DRUGGISTS' DIARY for 1890. Our correspondent says that either of these masses may be conveniently prepared in an iron stewpan of sufficient capacity over the kitchen fire, melting the ingredients and stirring them well together *secundum artem* :—

Physic Balls.

	Oz.
Aloes bbd.	36
Sapo. hisp.	8
P. zingib.	8
Sacch. fac.	2

Melt the aloes, treacle, and soap carefully over the fire; add the ginger, and mix thoroughly.

Cordial Balls.

Sacch. fac.	3½ lbs.
P. zingib.	12 oz.
„ anisi	8 „
„ carui	8 „
„ curcum.	8 „
„ capsici	2 „
Ol. anisi	1 drachm
„ juniper	1 „

Heat the treacle over the fire to nearly boiling-point; stir in the powders, previously mixed, and add the oils.

Diuretic Balls.

Resin. flav.	3 lbs.
Sapo. mollis	2 „
Nitrat. potass.	2 „
Ol. terebinth.	10 oz.
P. fenug.	2 lbs.
„ curcum.	1 „

Melt the resin and soap together, add the oil of turpentine, and stir in the powders, previously mixed.

Fever Balls.

	Oz.
Camphor	4½
Ant. pot. tart.	4½
Potass. nit.	6
Sapo. hisp.	9

Divide into 1-oz. balls.

These four masses, says our correspondent, will serve as the basis for a complete variety of horse balls in accordance with the following instructions:—The cordial mass forms an appropriate vehicle for tonics, such as sulphate of iron, &c., and, with the addition of a small proportion of the aloetic mass, makes an admirable constitution ball. Equal parts of the cordial and diuretic masses, with a judicious proportion of tartarated antimony, yield an effectual alterative, and a combination of the diuretic with the usual dose of sulphate of copper—say, 30 grains—forms a satisfactory remedy in farcy and allied affections. The fever ball is useful in all inflammatory diseases, and, in cases of cough, may be combined with suitable proportions of opium, &c. Each ball should be wrapped in waxed paper, and afterwards in an outside wrapper. Six or twelve may be packed in a box with suitable circulars.

CHEMISTS' CHRISTMAS PRESENTS.

WE now complete our report of the suggestions sent in competition on this subject.

AS VARIATIONS OF THE ALMANAC IDEA

we have the following:—A book, pages about the size of a post-card, entitled "The Book of the Toilet; or, Simple Hints on the Care of the Skin, Hair, Teeth, &c.," compiled by J. Blank, chemist—to which is added a price-list of pure drugs and chemicals sold by him—High Street, Dulltown, Christmas 1889." On one side of each leaf the almanac, and on the other the "simple hints." For example, in treating of the skin, a few words regarding its nature, physiologically; then bring in soaps, cold-cream, lanoline, toilet-powder, &c. So with the teeth, introduce J. B.'s celebrated tooth-paste, powder, or wash. Each speciality mentioned in the text being printed in bold type, but taking care not to say too much about them, or it will be too obvious a puff. The last few pages would contain his price-list, and the book might be perfumed with J. B.'s "sweet and lasting Dulltown Bouquet." The recipes in THE CHEMISTS' AND DRUGGISTS' DIARY, 1889, would prove very useful, so would the list of books recommended in the THE CHEMIST AND DRUGGIST some years ago as a "chemist's library," in writing the hints. "Angus Mearns" (191/29). "Ally Sloper" sends a post-card so microscopically written that we are obliged to pass his probably valuable suggestions over lightly. Our object in insisting upon post-cards in these competitions is to ensure conciseness, and we cannot allow "Ally" to defeat our purpose by his skilful penmanship. He appears to recommend a book of hints for the household and to describe its contents. T. D. Wright, Southport, contributes the sketch shown. The book should be about 2½ inches by 3 inches,



twenty to thirty pages, cover of imitation parchment, leatherette, or Russian leather, with coloured (if not too expensive) panel, back tied with coloured silk cord, title-page, "Common Ailments: their Symptoms and Treatment; with many useful Hints on Personal Hygiene." Of course the list of ailments treated will be regulated by Blank's specialities. One or two pages might also be utilised for the usual postal information and for the calendar.

FANS

are suggested by J. Cripps, Reepham; C. Hanson, Cressington, Liverpool; and H. B. Palmer, Bedford. No. 1 is to be ornamented with flowers of each month packed in a box, labelled "Laden with choice perfumes from Blank," &c. No. 2 is to carry on each sail of the fan an advertisement of one of Blank's specialities. No. 3's idea is to connect three Japanese fans so as to fold up or hang to the wall, a four-month's calendar to appear on each.

The distribution of

SAMPLES OF PERFUMERY

is recommended by several competitors. Thus:—A ¾-oz. flat, neatly-labelled bottle of Blank's "Old English Lavender Water" ("Park Forest," 186/16). 5j. or 3ij. sample bottles of "Santa Claus Bouquet," to be made by mixing equal parts of ess. bouquet and Warrick's heliotrope, to be enveloped with a circular (J. F. Golding, 172 Albany Street, N.W.). A cheap fancy basket filled with frosted cotton-wool. In the centre a small bottle of perfume, a cake (fancy) of scented soap, or box of tooth-powder (F. A. Hanson, 4 Aigburth Road, Cressington, Liverpool). Two 5j. long vials, containing scent or other toilet speciality, corked with homœopathic corks, capped and sealed, or with Hunt's bottle-caps, tied with coloured ribbon; white enamel labels with gold letters, packed in white-card slide-boxes in pink cotton-wool, a neatly-folded circular enclosed ("Eruv," 180/17). A very similar suggestion is made by E. Wilson, 128 Holloway Head, Birmingham. His label would be in red and black type, and read, "Fine sample Blank's Christmas Bouquet. With the Compliments of the Season." "J. S. W." (192/32) is rather lavish. His notion of a Christmas gift is a 4-oz. cut-glass stoppered bottle, with burnt-in label,

filled with own special perfume. He estimates the expense at 3s. 6d. per bottle.

Fred Reynolds, Leeds, sends us four designs, as follows:—

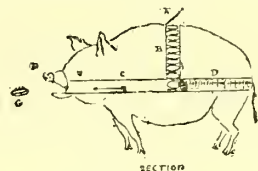
SWEET-SCENTED POPPY CAPSULE.

Take a fair-sized poppy capsule, prick numerous holes in upper half of it; insert 3ij. pot-pourri, cover holes up with G.P. tissue, tie a piece of coloured silk ribbon from stalk to apex. Print in black letters seasonable wishes, or attach a small card bearing same to the ribbon.



THE PHARMACEUTICAL FIG.

Get your toymaker to supply a few gross of paper-pulp pigs, and fit up as sketched.

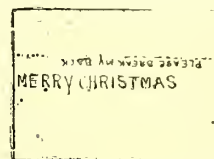
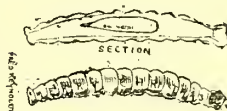


- A. Lid for introducing supply of peptonic tabloids.
- B. Shaft to automatically deliver same by gravity.
- C. Tube leading to outlet at mouth.
- D. Compressible spiral spring.
- E. Trigger (or tail).
- F. Hinged snout, opened by force of tabloid striking it.
- G. Ejected tabloid.

Christmas greetings might be printed on his sides.

THE ROSE-TREE CATERPILLAR.

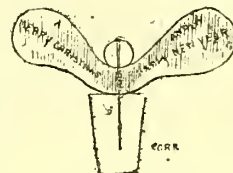
Take piece of thin glass tube, heat in flame. Make small capsule. Fill with otto and S.V.R., seal end up, wrap thin layer absorbent cotton-wool round; cover with piece white



silk 2 inches long by 1½ broad. Tie piece of red silk thread round one end, and spirally wind it towards opposite end and tie. An indiarubber stamp might be used for marking silk.

ATTACHMENT TO A BOTTLE OF PERFUME.

Cut out of green cardboard (in one piece) two leaves to represent mistletoe. Push a pin through a gelatine-coated pil. quinae and fix together as here depicted. Any suitable inscription may be written on each wing.



GOING OUTSIDE PERFUMES.

W. Rogers, Ben Jonson Road, Stepney, suggests two oval tablets of fancy soap, tastefully wrapped and packed in 4-oz. card folding-box. Mrs. Artbur, Yarmouth, proposes a vinaigrette made of ivory, xylonite, or bone, about the size of a florin, perforated on one side, and name of chemist on the other. An ivory paper-knife, with name and address and compliments of chemist stamped on it, is proposed by J. Artbur, Yarmouth. This could be sent out in a tooth-brush envelope, and would cost under 1s. each. Bone or xylonite could be used if a cheaper article were desired. Smelling-bottles are advised by R. Sheel, Low Fell, Gateshead, and by "Spes," Harrogate (187/16). These give formulae for filling. The first is:—

P. ammon. carb.	..	..	..	..	3ss.
P. cubebæ	..	..	..	..	gr. ij.
Ess bergamot ..	..	..	..	..	gtt. ij.
Ol. lavand. exot.	..	..	..	..	gtt. ij.

The other, which is to scent sponge-cuttings, is thus made:—

Ol. lavand.	..	..	..	..	5j.
Ess. moschi (1 in 20)	..	..	..	..	5j.
Ol. bergam.	..	..	..	..	5j.
Liq. ammon. fort.	..	..	..	..	3℥.

A 5j. sample of a skin emollient, for which he offers the title "Lanolasoline," is proposed by G. W. Harris, Canterbury. To be made with lanoline, 2 oz.; white vaseline, 1 drachm; paraffin wax, 6 drachms; perfume and carmine, q.s. "Tulip" (186/16) recommends one pair of neat well-made straw soles, with a neatly-printed card-list of "Blank's Winter Specialities" stitched to one side of the soles, and on the reverse side a still neater little card bearing "The season's compliments." A neatly-printed price-list of leading articles might be sandwiched between the soles; the whole enclosed in a chastely-designed envelope. Cost 2½d. per family.

From R. H. Richards, Honiton: "With the chemist's compliments of the season," a sample bottle, say 3ss., of his winter drinks, which are in large request at Christmas. Three bottles, neatly capped, and tied around with ribbon—peppermint, ginger, and clove—packed in a small cardboard box, with other advertisements, and with an ivy leaf, with the words, "With Mr. Blank's compliments of the season," printed across the leaf in gold letters. The ivy leaf would signify "Cling to me for other goods."

From Elsie Hanson, 4 Aigburth Road, Cressington, Liverpool:—Miniature hamper containing sample boxes (pill-box size) of various specialities, such as tooth-powder, pomade, violet powder, heal-all ointment, sachet powder, tooth-paste, polishing paste, miniature bottles of perfumery, household liniment, glycerine cream, &c. The hamper should have Blank's printed tally attached.

W. E. Plant, Rugby, proposes to insert into a case like a court plaster case, but with appropriate words outside, three strips of pretty coloured cardboard, each carrying four months of calendar, and between each card a strip of flesh-coloured court plaster.

MISCELLANEOUS.

Mrs. Thornton, Exmouth, suggests a pretty coloured map (size of a post card), on card, with countries, towns, rivers, oceans, seas, islands, &c., of all the different drugs, perfumes, pills, plasters, oils, lozenges, &c., with a neat border round, and on the other side of the card (which should be tinted) name and address. Or, a lead pencil, the width of this card in length, ready pointed, light blue enamelled, and gilt letters with name and address. Miss Rees, 267 King's Road, Chelsea, advises Mr. Blank to send to his customers a coupon, enclosed in an embossed envelope, with "The Compliments of the Season," the coupon entitling the receiver, when presenting it at Mr. Blank's shop, to a bottle of scent, or some speciality he wishes to make popular.

J. J. Lakeman (Leytonstone) proposes a neatly got up card with floral border, headed "Christmas Puzzle," and giving in disorder the letters forming the title of one of Blank's specialities, and offering, to any who shall arrange them properly and bring them to his shop, to give a useful present, which would be the speciality; advertising on the reverse side of the card. T. D. Wright (Southport) would send, on separate little square cards, as a Christmas puzzle, a short sentence for arrangement, as, for instance, "Blank's—every—at—sensible—buys—housewife—drugs—her." But he does not propose any reward for success.

From W. S. Harvey (Margate):—Let Mr. Blank have some chromos on stout card—the Eiffel Tower—stamped out to shape, and the back of same divided into spaces of varying sizes, on each of which a speciality shall be advertised. These to be cut up for a puzzle to offer juvenile customers and to come before older eyes. These pieces to be enclosed in envelope endorsed, "Every child his own builder," "England's Eiffel," or other name.

From J. Glover (St. Helens):—Take five square cards and cut a triangle from the side of each. Send the ten pieces, with a Christmas card, as a puzzle, which is to arrange all the pieces into one large square; speciality to be advertised on each.

VIEWS.

C. S. Tyler, Ipswich, sends a photograph of Felixstowe on a card, and suggests sending photographs like that, and on

the reverse a calendar and advertisement. This could be used to promote the sale of apparatus. The Woodbury Company, he says, would turn out any quantity at a total cost of ⅓d. each. R. Crofts, England Lane, N.W., would send a mounted photograph of the district two or three centuries ago, as e.g. Marylebone in 1589. C. Kent, Newcastle, suggests a card with view and verse, plain or coloured. His specimen is shown.



A Christmas blessing rest on you
And all your heart holds dear;
May peace, prosperity, and health
Attend the coming year.

[Chemist's name, &c.]

And we wind up with the following pretty design, which is suggested by E. J. Burrow, care of Jeffrey & Son, Cheltenham, as the headpiece to an announcement introducing, perhaps, mention of the great advances of pharmacy and Blank's new preparations:—



It is not very easy to award the prize in this case. Of course, it is quite simple to suggest a present which would be acceptable to customers, but this is not all that has to be considered. Nor can we be satisfied with the description of almanacs with which every chemist and every householder must be familiar. What we wanted was novel, practicable, and fairly economical suggestions, of means for promoting business by an appropriate presentation. We wanted, in short, some new form of the proverbial sprat which might help in catching the now well-trained and wary herring. A good many correspondents have taken the idea

and have set themselves to fulfil it, and to all we are grateful. Some of the most hopeful suggestions were those reported on page 802 of our last issue. We refer, especially, to the hanging almanac devised by Mr. Wilson, Romford, the letter rack with calendar proposed by Ammon. Brom., the folding card suggested by Mr. F. D. Wright, Southport, the Daily Indicator proposed by Nemo, and the sweetly scented blotter recommended by M. Arthur, Yarmouth. We also like the idea of Miss or Mrs. Elsie Hanson, of Cressington, Liverpool, on the previous page, of a miniature hamper, with pill box and tiny bottle samples of tooth powders, scents, &c. We decide to give half a guinea each to Mr. C. Wilson, Romford (for the hanging almanac made useful by notes on common ailments); to Mr. (or Mrs.) M. Arthur, Yarmouth (for the suggestion of the sweetly scented blotter); and to Miss (or Mrs.) Elsie Hanson, 4 Aigburth Road, Cressington, Liverpool (for the notion of the hamper). We select these because in each case a special association with the business of a chemist and druggist has been borne in mind. We cannot help recognising the ingenuity of the pharmaceutical toys proposed by Mr. Fred Reynolds, Leeds, with another half-guinea, though we do not quite fancy either of these as a chemist's Christmas present. And finally, if Mr. E. J. Burrow, of Cheltenham, will inform us that his pretty sketch of a "village chemist's shop at Christmas 100 years ago" is original, we shall with much pleasure send him our fifth half-guinea.

PHARMACY IN AUSTRALIA.

WE glean the following items from the November number of THE CHEMIST AND DRUGGIST OF AUSTRALASIA, to hand this week:—

EARLY CLOSING.—The chemists in Queen Street, Auckland, N.Z., have all agreed to close their premises at 8 P.M., except on Saturdays.

VETERINARY.—Sir Henry Parkes, Premier of New South Wales, has promised that the question of establishing a veterinary school of medicine in connection with the Sydney University shall receive serious consideration.

AUSTRALIAN EXAMINATIONS.—The examinations of the Medical Court at Hobart (Tas.) and of the Victorian Pharmacy Board are fully described and commented on by candidates who recently presented themselves for examination.

WITHDRAWAL OF THE N.Z. MEDICAL BILL.—This measure, which has been so stoutly and ably opposed by the chemists of the colony, and particularly by the Midland Pharmaceutical Association, was, at the recommendation of the Medical Parliamentary Committee, withdrawn before coming out of the hands of the select committee appointed by the Legislative Council to consider it.

DENTAL ASSOCIATION FOR VICTORIA.—A meeting of registered dentists on October 2 formed themselves into an association, and pharmacists are well represented on the council—a fact which may be attributed to the influence of their representative on the Dental Board, Mr. Potts. The qualifications for membership are to be as in the British Dental Association.

CHEMISTS AS POLITICAL REFORMERS.—Messrs. G. N. and W. H. Birks, of Adelaide, and Mr. J. N. Birks, of Port Adelaide, South Australia, are ardent promoters of the "Single Tax" movement, which would raise all the revenue required for Government by a tax on land. Mr. J. N. Birks edits a "Single Tax" column in his local paper, and has delivered lectures at Gawler and Port Adelaide, which, according to all accounts, met with enthusiastic receptions.

A LADY PHARMACIST.—The application of a lady for membership of the Pharmaceutical Society of New South Wales was a novel and interesting feature introduced into the proceedings of the Council at its last meeting. This lady is the proud possessor of a Major diploma of the Pharmaceutical Society of Great Britain, and was therefore fully entitled to receive the distinction sought for, which was conferred upon her *nem. con.* At present she is filling the

position of dispenser in an institution at Liverpool, New South Wales.

DESTRUCTION OF TYPHOID GERMS.—M. A. de Bavay, a chemist employed at a Melbourne brewery, has given much attention to the condition of the Melbourne water-supply, and by bacteriological methods believes that he has demonstrated the presence therein of unmistakable typhoid germs. His experiments in this direction await confirmation by other investigators. M. de Bavay found that contact for 48 hours with .02 per cent. of lime, or 2 parts in 10,000, was apparently sufficient to destroy even the spores of the typhoid bacillus, which are far harder to kill than the mature germ. Fourteen grains of lime to each gallon of water, according to these observations, should be sufficient to prevent all risk of communication of the disease through the water-supply.

THE new Victorian tariff is gradually being understood. As each new article is imported the wholesale houses are finding out what duty is to be paid, and are modifying their prices accordingly. At present things are in a confused state at the Customs House. The landing surveyors are gradually evolving rules for their own guidance, but hitherto there have been no appeals against their determinations, and, consequently, no decisions by the Commissioner having the force of law. One point that has been discussed is Condy's fluid. This is acknowledged to be a disinfectant; "but," it is said, "we know that it is used for gargles and for other medicinal purposes for the human and animal body, and, as it is in bottles ready for retail sale, it must pay 25 per cent. duty." If this opinion should be adopted it will mean a lively state of things. It has been recognised in the department that in the phrase, "medicines consisting of two or more ingredients," the word "medicinal" has been omitted, and it should have read "two or more medicinal ingredients." This, of course, would mean a great modification of the scope of the clause, and would free from duty a host of articles in which all ingredients but one are merely vehicles or excipients. Medicated lozenges are under discussion. Hitherto they have been charged as confectionery. Now there is a feeling that they ought not to be so classed, and must come in either free or as compound drugs—i.e., if imported in bulk. Compressed tablets are considered by some to be free in bulk, but dutiable 25 per cent. if in small bottles for retailing. But nothing has yet been definitely decided.

Trade Notes.

MESSRS. HEARON, SQUIRE & FRANCIS have removed from Coleman Street, which has been their address for a quarter of a century, to their new premises at 38 Southwark Street, where they now ask for letters to be sent.

MESSRS. BURROUGHS, WELLCOME & Co. have reproduced on cards, in gold and colours, as an artistic advertisement for presentation, their "pinol" label, representing Alpine scenery with the snow-capped Matterhorn in the background.

INVISIBLE RESPIRATOR.—Messrs. Thompson, Walters, Hole & Co. send us a sample Roberts's invisible respirator, the peculiarity of which is that it is for the *inside* of the mouth. The respirator is made of two thin slices of xylonite (perforated), the outside piece being of the colour of the gums, so that when the respirator is in the mouth it is difficult of detection. It is claimed that the respirator is effectual as such, that it conveys an antiseptic to the inhaled air, and that it does not interfere with the speech.

EUCALYPTUS OIL.—Mr. Jeffries Timbury, chemist, of Gladstone, Queensland, has recently erected plant for the distillation of the oil of *Eucalyptus citriodora*, the citron-scented eucalypt which grows extensively in the Port Curtis district. The still takes a charge of about 200 lbs., and Mr. Timbury is able to treat half a ton per day, the product of oil amounting to a gallon. We learn that he also distils a peppermint-scented oil, and that Messrs. Prosser, Taylor & Co., of Brisbane, have samples.

OUR TOWN TRAVELLER.

AFTER a somewhat long period of indolence it has occurred to this gentleman that it would best prove to the drug trade that he is alive—"alive" in a business sense of the word—if he were to tell our subscribers something about the things that are on show at present in the way of Christmas goods—goods which chemists can sell or give away.

SOME TOILET REQUISITES.

The shop windows in the best centres are very gay just now, and if Leigh Hunt were alive he would write a far more entertaining essay on shop-window philosophy now than the one which he placed in the gallery of English literature. One window in Regent Street—a perfumer's window—is a charming glittering mass of exquisitely-cut perfume bottles. Several chemists, who are not educated beyond the point of taking a guinea for a bottle, are also making a display with this kind of ware. It is a style which has been in some time, and seems to last, probably for the reason that popular substitutes for it cannot be produced cheaply. Our Town Traveller reports that when he called at Messrs. S. MAW, SON & THOMPSON's he saw some exquisite samples of cut-glass goods. There is a large show-room devoted to nothing else, and the newest styles are always to be seen. In the general show-room at 11 Aldersgate Street the principal exhibits just now are perfume atomizers, perfume cases, toilet cases, and other articles of like character. These are mainly high-class goods, of artistic finish, and such as one would give for a handsome present. Large atomizers, with a good solid glass body, cut or enamel decorated, are now only used; their sale is worth encouraging, even at "cut" prices, as they tempt their possessors to be prodigal of perfume. Our traveller noticed a new style at Maw's, in which all the atomizing part is of metal; that is to say, there is a tiny but effective and elegant syringe-pump attached to the glass globe, which cannot fail to act—as indiarubber balls do in warm climates.

Our traveller called at Messrs. LYNCH & Co.'s, Aldersgate Street, a few days after Mr. Cohen's return from Paris, and in time, therefore, to see the latest Parisian novelties. These are principally in the nature of toilet-table requisites, in which the metal-worker's art is the basis of the combinations. Thus there are a number of toilet stands, sets of bottles, jars, and the like on silver and gilt trays of various shapes. One tray, our traveller noticed, was a yacht, but this was the most fantastic shape. The bottles are curious, being of twisted glass, white at the base and ruby-gold at the top. This is a pretty combination. A perfume-atomizer is part of all the best sets. Mirrors, brushes, puff-boxes, and perfume cases of the latest styles of art are on show. Oxidized silver, in old-fashioned *repoussé* style, plays a part in the decorations of the cases. In addition to this special exhibit of art goods, Lynch & Co. have a good display of the usual toilet articles in their show-rooms. They have just received a very large consignment of Ricksecker's perfumes, including delightful sachets and a complete assortment of bottled odours. These we had occasion to refer to in favourable terms in our Paris Exhibition notices.

JACK FROST AND MENTHOL CONES.

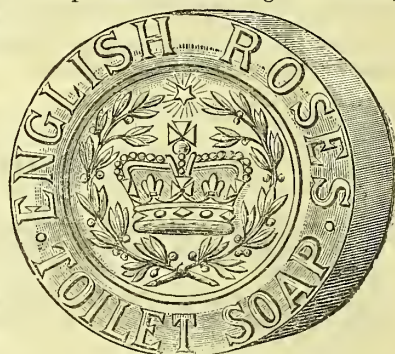
Jack Frost has given us a taste of his vigour this past week. A rival to him has come from the United States, and is offered to the trade by Mr. John Morgan Richards, of Holborn Viaduct. A sixpenny box is a big bargain. The peculiarity of the "Frost" is that it is not powdered glass but mica refuse. It glitters well, and is so soft that those who dream of laceration of the lungs through breathing the "frosty" air of ballrooms have no case in this instance. W. B. FORDHAM & SONS (LIMITED), of York Road, King's Cross, offer "Jack Frost" to the retail trade.

Mr. A. W. SHIRLEY, of 30 Paternoster Square, E.C., has his hands full just now with orders for his seasonable specialities. In addition to the work occasioned by the briskness in his business, he is about to remove to 55 Farringdon Street—a thoroughfare which is gradually becoming to the trade in proprietary and other put-up articles what Mincing Lane is for the raw goods. Mr. Shirley hopes to be

quartered in his new place before the Christmas holidays. He is very well satisfied with the trade in menthol cones, and expresses himself rather satisfied than otherwise at the rise in the price of menthol. But the cone trade is being very much cut up nowadays, and firms who have been among the pioneers in that business are gradually looking for additional articles to keep side by side with the cones. Cut-glass and other fancy-bottles for perfumers appear to offer a promising substitute in that direction.

SOAPS AND SCENTS.

Manufacturers of perfumery are busy all along the line, and not only speak with satisfaction of the present condition of the home trade, but are also unanimous in declaring that British goods are appreciated more and more in foreign countries. Among the novelties which are now being placed on the market by the CROWN PERFUMERY COMPANY, of 49 Old Bailey, E.C., are some handsome toilet soaps, prepared by the cold, or milling, process, which appears to find increased favour with our soapmakers. The new soaps turned out under this process by the firm are exceedingly dry and hard, one of the advantages of the system being the almost complete elimination of moisture by the process, and this imparts to the soaps their "unwasting" character, the cakes retaining their shape intact to the last. The soaps are made in several varieties: alum and glycerine, rose, elder-flower, and so on. They are put up in three sizes, to retail at 2d., 3d., and 4d. respectively, and may be had either in cartons of one dozen or in wooden boxes of three dozen. A more expensive soap is that which we illustrate. It is called the



"English Roses" soap, and is brought out in otto-scented, rose-coloured round cakes, to retail at 6d. each, and also as a grey-coloured antiseptic soap, known as the "Strawberry Pine," put up in cakes of the same size. In their perfume department the firm express themselves as specially pleased at the continued success of their Lavender Salts and Crab Apple Blossom perfume. They have quite recently brought out five new scents, to which they have given the names of White Lilac, Czarina, Asphodel, Corylopsis, and Gardenia, and which are all got up in the same style as the Crab Apple Blossom. For the purpose of calling attention to these scents, and to push the sale of the larger bottles, the Crown Perfumery Company are supplying their customers with small "bijou" bottles, on cards of two dozen, to retail at 3d. each. They say that the demand for these bijou bottles has been quite phenomenal—more so, in fact, than they, strictly speaking, cared for, their main object being, not so much the profit of these small bottles, which are expensive to get up, as the idea that they serve as pioneers of the larger size, of which they are an exact facsimile. The Crown Perfumery Company must be complimented upon having solved the difficult problem of how to bring out show-cards combining neatness, effectiveness, and comparative originality. The show-cards in question are intended to further the sale of the Lavender Salts and the Crab Apple perfume, and consist of a simple background, black for the salts and red for the crab apple, with raised white lettering. The Crown perfumes are fast gaining ground on the Continent, in spite of the increasing difficulties in the way of Customs duties, and much of this success the manager attributes to the good display which the house made at the Paris Exhibition.



In the vicinity of Regent Street our Town Traveller looked in at Messrs. OSBORNE, BAUER & CHEESEMAN's works in

Golden Square, and there met with the same cheerful tale of expanding trade and rapid inpouring of orders which had met him elsewhere on his rounds. Oatmeal soap and chilblain jelly are among the seasonable articles upon which there was a pretty strong run just now. We noticed that the firm are more and more adopting the method of packing such goods as the jelly in collapsible metallic tubes. These tubes are neat, compact, and cleanly in use, and Mr. Holdsworth thinks they are destined very soon to replace all other modes of putting up such goods as ointments, toilet salves, &c. In their perfume department the firm are doing very well just now in their new ammoniated perfumes, to which we have recently called attention. Besides the single bottles, they now put these perfumes up by two's and three's in fancy cabinets for Christmas presents, and they also showed us some handsome sachets in dozen boxes of six assorted shapes and odours, which they offer at 4s. 6d. per dozen. The ammoniated scents have found an unexpectedly good sale in America, where they are being pushed by Messrs. McKesson & Robbins, of New York. We complimented Mr. Holdsworth upon the originality of the idea, and he then gave us some instances of the difficulties and trouble connected with the elaboration of fresh notions. "Now," he said, "when the 'Old London' Exhibition was on at Kensington, and everything old English was the rage, I thought it would be a good idea to get up some 'olde London sweete scentes,' and I went to no end of trouble, first to hunt up the popular perfumes of the early sixteenth century, then to find the names by which they were known, then the correct spelling, and, finally, designs for labels to suit the period." And Mr. Holdsworth produced a goodly stock of really original labels of considerable artistic merit, with views of old London, printed in blue, sepia, and pale yellow, and adorned with quotations from Sir John Davies and other ancient worthies. "Ye Gillie Flower," "Ye Posie," and other of that ilk were produced at that period and put up in ancient-looking bottles, capped with undressed leather, and fastened with a flax tape. Yet the scents never sold to any great extent—for what reason could not be traced. On the other hand, during the Prince of Wales's Indian tour, an account appeared in the papers of H.R.H.'s visit to some Indian temple, at the entrance of which his wrists and head were adorned with wreaths of a jasmine-scented flower called *Mhogra-Ka-phul*, or temple flower. Mr. Holdsworth asked a friend to procure him some flowers, and produced a scent closely resembling their odour, which was all the rage at the time, and still sells largely, though it is not particularly pushed now. Brown Windsor soap finds a special sale in the colonies; in Jamaica they take the best grades, but in Ceylon there is a large sale for the inferior qualities among the natives, the cakes being chopped up and retailed in the streets, for use, partly as an ablutionary, and partly as a medicinal vehicle. The firm make a special "black old Windsor" soap for Ceylon, but they are much annoyed by German imitations of their soaps in this particular market. Messrs. OSBORNE & Co. are among the firms who have not adopted the new milling process for soap-making, and who continue to pin their faith to the sale of remelted and refined soaps according to the old method. They are well satisfied with their Continental trade, and say that for their scents and some of their soaps, especially their best pale Windsor, they have customers even in the most protected markets.

THE THREE R'S.

Messrs. WARWICK BROS., of 13 Old Swan Lane, E.C., rejoice in an exceptionally busy season; they are so crowded with orders, in fact, that the head of the firm, generally so versatile in turning new ideas and happy thoughts into a tangible (and odoriferous) form, has not had time to think of anything in the shape of a novelty this season. But they have as many orders for jujubes, perfumes, and pastilles as they can conveniently manage, and it is satisfactory to hear that the trade continue to apply themselves diligently to the study of the three R's according to Warrick—Real Heliotrope, Real Violet, and Real Rose Cachous, to wit.

SACHETS AND INHALERS.

Mr. H. C. QUELCH, of 19 Ludgate Hill, E.C., is continually bringing out novelties for chemists, and we found his people busy packing the last remaining lots of Lazell Dalley's

perfume sachets to purchasers in the country. We called attention to these artistic sachets last month. In ten days' time Mr. Quelch had run through one hundred dozen, and when we called he was just working off the second hundred-dozen parcel. The sale of this sachet was greatly aided by the expedient of giving away a packet of miniature sachets with each dozen of the large size.

The "Bedford" inhaler, which we here illustrate, is one of the newest of the apparatus of this class, and its manipulation, as will be seen from the directions on the cut, is simplicity itself. It is nicely finished, being made in grey-coloured earthenware with a floral decoration, and sells wholesale at 1s. 3d. Another seasonable novelty is the small jar of scent which Mr. Quelch is just now offering to the trade. The jars are all made at Doulton's Pottery Works, which is equivalent to saying that there is nothing vulgar or gaudy about them. They sell in boxes of one dozen each in six assorted models. Our man asked about soaps, but was informed that that trade was practically "worked out," and no longer left a working profit. Last year at Christmas time there was quite a run on toilet soaps, but this season scents have taken the lead.



REMINISCENCES OF SUMMER.

Messrs. G. VOGT & Co., of 19 Laurence Pountney Lane—who have lately placed on the market two new perfumes, very sweet, and prettily entitled and labelled, one "The Scent of the Hayfield," the other "The Scent of the Lilies"—told our representative that they were very well satisfied with the appreciation which the trade and the public had shown of their novelties. The luxury trade seems to be booming in all directions.

GURJUN OIL.

At Messrs. BURROUGHS, WELLCOME & Co.'s establishment in Snow Hill all departments are also reported as unusually busy. The firm are now bringing out a new remedy, of which Gurjun oil forms the base, and which from that fact is specially recommended for the cure of certain skin diseases. The remedy has been talked of a good deal from time to time, but hitherto it has found no place, we believe, in European materia medica. But it appears that Father Damien, the leper-hero of the Sandwich Islands, had great faith in the efficacy of the remedy, and hence the Snow Hill firm are now placing it again before the trade. It is put up as an ointment with lanoline cream, and the penetrating power of the drug is thus considerably increased. The hypodermic tubes brought out by this firm are also being sent out now in a new pocket-case of red leatherette barely 2 inches square, which keeps them very much safer than did the former mode of packing.

JAPANESE LACQUER.—Mr. R. Hitchcock, in a paper communicated to the Chemical Society of Washington, has given a lucid account of the collection and chemistry of lacquer, and, in describing the uses to which it is applied, he urged that it should receive more attention than has hitherto been devoted to it by manufacturers. "It gives a surface to wood," he says, "much harder than our best copal varnish, without brittleness. It takes a polish not to be excelled, which lasts for centuries, as we may see in the old treasures of Japan. It is proof against boiling water, alcohol, and, indeed, it seems to be insoluble in every agent known. It is the best possible application for laboratory tables. I have a set of photographer's developing trays that have been in use for more than a year, and I find them excellent and cheap. In Japan it is used for many household articles."

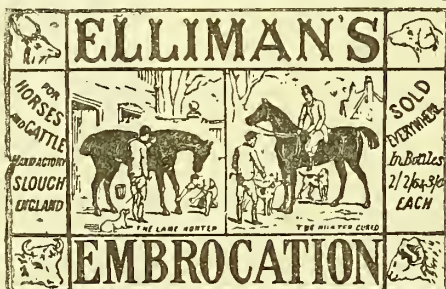
REGISTERED **"SANITAS"** TRADE MARK.
DISINFECTANTS.

Fluids, Powders, Soaps, Toilet & Veterinary Preparations.
 Gold Medals, Calcutta, 1884; Paris, 1885; Antwerp, 1886; Ostend, 1888

KINGZETT'S BACTERICIDES.

KINGZETT'S PATENT PRESERVED
PEROXIDE OF HYDROGEN.
THE SANITAS CO., LIM., BETHNAL GREEN LONDON.

SHOW CARDS, 24×17 or 17×12,
 Free to any Address in the United Kingdom.



See First page, facing inside of front of Cover, in the
 First Issue of the month.

GLYCERINE & CUCUMBER,

First quality, 9d. per lb., by using

ROUSE'S CONCENTRATE CUCUMBER PASTE.

In Jars (free), 1-lb. 2s. 3d.; 1-lb. 4s. 3d. net.

Making respectively 3 lbs. and 6 lbs., costing 3d. per oz., by the simple
 addition of Water and Glycerine.

ATTRACTIVE LABELS FREE ON APPLICATION.

Through any Wholesale House, or post free for P.O.

ROUSE & CO., 12 Wigmore Street, LONDON, W.

Practical	Chemists use it as they appreciate its convenience.
High - class	Chemists use it as it gives the best results.
Scientific	Chemists use it as it requires no skill.
Cutting	Chemists use it as it bears a large profit.
Busy	Chemists use it as it saves time.
Lazy	Chemists use it as it entails no trouble.
Go-a-head	Chemists use it as it supplies a want.
Old-fashioned	Chemists use it as it sells without pushing.



"SECURUS JUDICAT ORBIS TERRARUM."

Apollinaris
 "THE QUEEN OF TABLE WATERS."

The filling at the Apollinaris Spring (in Rhenish Prussia)
 amounted to

11,894,000 Bottles in 1887

12,720,000 AND " " 1888

15,822,000 " " 1889



MUMFORD'S

FARRINGTON ROAD, LONDON, E.C.

PURE CRUSHED LINSEED IS NOW
17/- cwt. CARRIAGE PAID

TO ANY RAILWAY STATION IN ENGLAND AND HALF TO
 STATIONS IN SCOTLAND, IRELAND, AND WALES. [2]

SILICATED CARBON FILTERS

AERATED

PATENT MOVABLE BLOCK.

See Advertisement, page 20.

Fletcher's
Concentrated Liquors

See Diary, Pages 17 and 18.

EDITORIAL NOTES.

THE PHARMACY BILL, 1890.

We are anticipating with a fair amount of interest the report of the committee of the Pharmaceutical Council charged to consider the advisability of framing a Bill for Parliament to amend the Pharmacy Acts. We recognise in the terms of the reference some indication of a disposition to take a bold course, and aim at an amendment of the law such as would make the Pharmacy Act "a more complete enactment for carrying out the principles of its preamble." At the beginning of this year we urged a policy of this kind on the Pharmaceutical Council, and we invite that Council again, in the words we used then, "to place itself at our head and go forward in a Parliamentary campaign, which would surely unite the hearty support of its own members and of the larger outside body who only wish for reason to look to it with some confidence as the mouthpiece of the trade." It is obvious that if we are to get into any more satisfactory legal condition this century the initiative must be taken by the Pharmaceutical Council. No one would welcome more heartily than ourselves the manifestation of broad views and bold conduct on the part of its members in the execution of the idea they have themselves just expressed.

But to secure the sympathy and co-operation of the trade-

generally a measure of quite different character to the Bills of the past two or three years, or to that outlined by Mr. Hampson at the last Council meeting, must be drafted. The warmest advocates of the compulsory curriculum will scarcely assert now the possibility of arousing anything like general enthusiasm in its support; and it is simply inconceivable that anything beyond callous approval at the best can be evoked on behalf of methods for helping the Pharmaceutical Society to re-establish its waning efficiency by the extension of its membership in a downward direction. We do not argue against these proposals; in the abstract we see no objection to them as the fringe of a serious Pharmacy Acts Amendment Bill; but we maintain with confidence that they cannot satisfactorily serve as its framework.

We do not advocate, and never have advocated, the view often expressed in our correspondence columns that, as chemists are subject to a certain amount of examination, they have a right to claim some equivalent in the way of protection. The law does not compel anyone to be a pharmacist; it only stipulates that no one shall be one unless he fulfils certain conditions, and as the supply of pharmacists remains quite equal to the demand, it does not appear that the restrictions are looked upon as a hardship. But we have on a former occasion indicated certain claims which in our opinion pharmacists could put forward with reason, and the concession of which would be likely to benefit them and the public at the same time. The four points of the Bill we suggested at the beginning of this year were these:—

1. The branch shop clause proposed and partially adopted by Parliament itself, requiring that every chemist's shop shall be under the control of a qualified person.

2. The qualification of every person owning a pharmacy. Parliament cannot reasonably insist on qualified managers for branch shops and permit the anomaly of unqualified owners as in the case of companies.

3. The limitation of the compounding of physicians' prescriptions to registered chemists and druggists, the rights of all classes of medical men being reserved. This is the law in Ireland, and it would be of public benefit if it were so in Great Britain. People not only want to be protected when they buy poisons; they want quite as much to be protected from poison when they buy medicine.

4. The addition of carbolic acid to the Poisons schedule.

We need not enlarge upon these claims. They are all reasonable, and strictly in accord with the purposes of the Pharmacy Act as expressed in its preamble. The time has come when the demand for such a fulfilment of the objects suggested in that Act should be pressed with earnestness; and if the Pharmaceutical Council will take upon itself that duty, it will show more effectively than it has done for many years past its capacity to worthily represent and lead the trade which it nominally heads.

THE INFLUENZA EPIDEMIC.

TEN days ago we heard from St. Petersburg that something very like an epidemic of influenza had started there, and it was not long ere it transpired that the disorder had attacked all ranks of society from the Czar downwards, whole regiments were incapacitated from duty, university professors had to abandon their lecture-rooms for their bedrooms, school children were prostrated by thousands, business was paralysed owing to clerks and others being influenzaed, and generally everything was in a state of panic. The epidemic travelled westwards; seized Austria, Germany, and made a big leap to Paris, paralysing the staff of a drapery establishment and throwing the Post Office into disorder. While bound to admit the probability of some exaggeration

in the newspaper reports, there is yet sufficient evidence of veracity in them to justify the conclusion that Europe is now fairly in the grip of one of those epidemics of influenza which have periodically attacked it, and of which we have records extending back to the sixteenth century. The remarkable lesson that these records teach is that the epidemics have generally either commenced or ended in Russia and the East. Thus, in 1557, one epidemic commenced in Asia and extended westward over Europe, even reaching the American continent. Neither seas nor oceans seem to interrupt its course, nor can it be said that its origin and progress conform to any fixed law. Some epidemics, like the present one, have commenced in Russia and passed through Poland to Germany, and afterwards to England, while others have entered Europe through Italy, passed through France and Spain on to England, and thence to northern Europe, ending in Russia. The most significant fact which we learn from historical records is that England does not escape, as a rule, and, judging by precedent, before the new year is far advanced influenza prescriptions and remedies will be dominating British pharmacy.

We have not had any real epidemic of this form of catarrh for about forty years, and then it was sufficiently serious in character to require a Parliamentary inquiry and a Blue Book. Previous to that there were several remarkable epidemics—notably that of 1782—which is said to have prostrated four-fifths of the inhabitants of London. Since that time we have made some progress in medical science, and, doubtless, on this occasion physiologists and therapeutists may be able to arrive at a satisfactory conclusion regarding the cause of influenza; and when we obtain precise information on that point, rational treatment will not be difficult to formulate. Hitherto we have sought for the cause of influenza in some peculiar condition of the atmosphere. If the eruption at Krakatoa were not half forgotten, by this time it might have been safe to attribute the present epidemic to it. Were the world closer than usual to some comet or other we might have thrown the blame in that direction; or we could even attribute it to the air being supercharged with electricity. But none of these explanations will satisfy modern requirements; nothing less, or larger, than a bacillus will do, and for that Continental physicians are already on the hunt. When they get it they will be able to confirm the hypothesis enunciated forty or fifty years ago, to the effect that, "in certain conditions of the atmosphere there are developed myriads of extremely minute substances possessing life, either animal or vegetable. These float about, and are driven by currents of air hither and thither. So driven, they are brought in contact with the mucous surfaces of the air-passages, upon which they exercise an injurious influence." It would seem from past records that the atmospheric condition referred to is one of suddenly increased temperature. Thus, in 1782 the thermometer rose 30° in one night in St. Petersburg, and next morning 40,000 people were laid low with influenza. Within the past ten days we have experienced an equally sudden wave of warm weather.

Influenza is distinctly febrile in its nature, and is accompanied by inflammatory symptoms of the air passages, great depression, languor, anxiety, and lowness of spirits. There are various complications, and if the attack is severe it is very hard upon old and weakly people, especially if the bronchial trouble is acute. In such cases there is a sudden and unaccountable loss of strength, which is liable to carry off the sufferer. It is this loss of strength which makes two days of the acute symptoms of influenza as bad as a fortnight of some other febrile and bronchial affections, and herein lies the danger, for patients are apt to underestimate

the complaint, and too sudden exposure brings on other chest troubles. Whenever influenza attacks anyone he should take to bed without delay, and begin to take diaphoretics at once. For an adult a powder composed of Dover's powder 10 grains, lobelia 3 grains, and nitre 4 grains, is a good thing to start with; so also is a $\frac{1}{30}$ grain pilocarpine tabloid. Either of these starts diaphoresis, which must be maintained by hourly doses, consisting of 1 minim of tincture of aconite in a teaspoonful of Mindererus spirit. Meanwhile the strength should be maintained by nourishing food, preferably in liquid form, such as soups and beef-tea. Diarrhoea is a common symptom, and should be treated with small doses of opium and astringents. When the febrile symptoms have abated the administration of nourishing food should be continued during the period of convalescence, which lasts ten days or a fortnight, the patient meanwhile taking a tonic of the Easton's syrup class. Amongst the secondary symptoms of influenza are frontal headache (for which antipyrin is likely to be the popular remedy on this occasion), cough, and sore throat, which may be treated with the usual remedies. The complaint is sometimes spoken of as one of inferior gravity, like a common cold, but the symptoms are distinctly different; it is contagious, intensely weakening, occasionally fatal, and for these reasons it is not a thing to treat lightly.

PHARMACEUTICAL AND TRADE ENGLISH.

THE drug names treated in the new part of the Philological Society's Dictionary are not of special historic interest. The origin of the name "castor oil," Dr. Murray says, is uncertain, though he notes suggestions that it became so called because it took the place of the drug castor, or perhaps its oil, in midwifery, in the same way, he says, as "castor-oil pills" has become a popular name for pills which have the same laxative effect, but which contain none of the oil. Bentley and Trimen say ("Medicinal Plants," vol. iv.): "The name castor was first applied to this plant (*Ricinus communis*) in Jamaica, where it seems to have been called 'Agnus castus,' though it bears no resemblance to the South European plant properly so named (*Vitex agnus-castus*, L.)." It would be interesting to know on what authority the latter statement is based, as Dr. Murray does not seem to be aware of it. "Cicinie" is given as an obsolete name for the oil, from the Latin *Cicinus*, and Greek *Kikinos*, the Greek word being derived from *Kiki*, which was the name of the plant. The drug "castor," or "castoreum," is the Latin or Greek name for the beaver, which furnishes it. In Sanscrit musk is known as *Kasturi*. The name "Cinchona" was given, as everyone knows, by Linnæus in honour of the Countess of Chinchon, who first brought it from Peru to Spain as a remedy for tertian fever. We all know, too, that the name should have been *chinchona*, and some authorities always use this form; but, as Dr. Murray says, the accepted form is too deeply rooted to make this expedient. The words "Quina," "China," and "Quinquina" are in no way derived from *cinchona*. They are from "Kina," which is the Peruvian name for bark, "Kinakina" meaning "bark of barks." It is a popular misconception that "chillies" are so named from the country Chili, and another that the name "Cayenne pepper" has any association with Cayenne, the principal town of French Guayana. Chili is the Mexican name of the fruit transferred to our language, and cayenne is derived from the Tupi (Brazilian) name *Kyynha*, *Quiynha*, and *Quiya*. It would be useless to ask for "poivre de Cayenne" in a French restaurant unless

an English waiter happened to be on hand, though if the French South American settlement had furnished the name it would have been almost certainly clung to with affection by our neighbours. It is also notable that the vulgar pronunciation "Kyan" is nearer the original than that more fashionable. It corresponds, too, with the spelling in old English books. "Catechu," like the French *cachou*, is from *Kacchu*, the name in Malay, Tamil, Telugu, and other Eastern languages. "Chirayta" is a Hindi word, and is traced to the Sanscrit *Kirata-tikta*, butter-plant of the Kiratas, an ancient forest tribe on the north-east of Bengal. "Civet" is traced back, through French, Latin, and Greek, to the Arabic word *Zabad*, which was probably the name of the quadruped adopted from some African language. "Charcoal" seems to puzzle the etymologists. "To char," that is, to reduce charcoal, is apparently a verbal use of the first syllable of charcoal; "chare coal," which might mean wood that has been turned into coal, and a connection with Celtic *Caor*, fire, have been suggested, but there is no evidence in support of either fancy.

The elements referred to in this part are "Cerium," which Hisinger and Berzelius named after the then recently-discovered planet Ceres; "Chlorine," named by Sir H. Davy from its colour (Gr. *Chloros*, green); and "Chromium," first called "Chrome" by its discoverer, Vauquelin, from the Greek *Chroma*, colour, as indicative of the brilliant colour of its compounds.

The etymologically interesting names of diseases here discussed are "Cataract" and "Cholera." The former word, as applied to an eye-disease, has a very curious history. Cataract is traceable to the Greek *Kata-rassein*, to rush down, and its common meaning as applicable to a waterfall is very obvious. But in the Septuagint and in the Vulgate *Kataraktai* and *Cataractæ* respectively are used for the Hebrew word in the account of the flood, when it is said that the windows (or lattices) of heaven were opened. Several quotations are given showing that cataract as applied to lattice windows was used in English from the fifteenth to the seventeenth centuries. But Dr. Murray does not connect this meaning with the same word used pathologically, though he gives several quotations from sixteenth-century writers who thus name the disease. Cataract, it appears, was also used to describe a portcullis, a door let down, thus obstructing vision. Ambroise Paré refers to "Cataracte ou coulisse"; and a French lexicographer in 1611 gives *Coulisse* as meaning a portcullis, and also a web in the eye. We should have thought the lattice idea was more likely than the portcullis one to have suggested the application of the term to the "web in the eye." "Cholera," with its associated words "Choler," "Choleric," &c., are discussed in the Dictionary at considerable length, and the quotations from early English writers are of much interest. Cholera was one of the four humours of the ancient physicians, the others being *Sanguis*, *Melan-cholia*, and *Phlegma*. *Chole* was Greek for bile, and this is assumed by Celsus and others to be the origin of the words; but "the formation is obscure, and the derivation disputed." *Cholera* in Greek also meant rain-pipe, gutter. In French the old word, as applied to a humour, reappears as *Colère*. In old English the word got confused sometimes with colour, one old writer (Elyot, 1533) telling us that "naturall coler is the fume of blood the color whereof is redde and clere, or more lyke to an orengc color." The gradual specification of the term for the disease and its varieties is fully explained by the long series of quotations given; but some little doubt still remains, it would seem, whether the word in its first sense had reference to the bile or to the rain-pipe notion.

COMMENTARY.

BEFORE the Merchandise Marks Act had passed the legislature we pointed out that the offence of a false trade description created by it might be made to apply to the custom, theretofore regarded as innocent, of firms selling, with their own labels attached, chemicals which they had not actually manufactured. In a case brought before the High Court last week this point was well discussed and adjudicated upon by the Lord Chief Justice and Mr. Justice Mathew. The Chilworth Gunpowder Company, who had a contract to supply a certain quality of gunpowder to the Government, had, on one occasion, supplied some of German manufacture in barrels, marked "Gunpowder. The Chilworth Gunpowder Company (Limited)." It was admitted that this powder was equal in quality to their own manufacture, that they had supplied it under pressure of demand, and that they lost money by the transaction. But the Court held that the infringement of the Act, the "false trade description," was proved. An element in the argument was the consideration that the company are essentially manufacturers, and that, therefore, the mark might be taken as an implied warranty. Had they been known to be merely dealers the result might have been different.

MR. MARSHALL LEIGH told the Pharmaceutical Council last week that for the prizes offered by THE CHEMIST AND DRUGGIST in its "Corner for Students" monthly about thirty-five to forty entered. We may correct that statement by the information that the average number of samples sent out to applicants for analysis is just about double what Mr. Leigh thinks. For the present competition, for instance, seventy-five samples have been distributed. Mr. Leigh further assured the Council that our competitions have not the prestige that those initiated by themselves would have. While congratulating Mr. Leigh on the modesty of this claim, we venture to improve the occasion by straining our own a little.

WE have been working steadily at this "Corner for Students" for more than twenty years past, have distributed hundreds of prizes, and have aided the scientific culture of scores of pharmacists, many of whom now occupy important positions. To go no further, we may mention that at the same meeting of the Council as that at which Mr. Leigh proposed his scheme, the retirement of one of the Society's examiners, and the appointment of another, came under consideration. Both of the gentlemen named had been prizemen in the "Corner for Students." We are not hungry after compliments, but it does strike us as a little premature to talk about the superior prestige of the Society's certificates before a single atom of work has been done. The men who came into the vineyard to work at the eleventh hour got the same wages as the men who had borne the heat and burden of the day; if they had been members of the Pharmaceutical Council they would have claimed sixpence against the other men's penny.

CONCENTRATION in open steam-pans was introduced by Henry in 1819, and we have since made little improvement in the form of the pan. We have added a few improvements such as half-jacketing the pans, shallowing them, or using stirrers, but the principle remains the same, *i.e.* exposing the whole volume of liquid to the influence of heat and air, until we get it to the desired consistency. There is an obvious objection to the simultaneous heating of the whole volume of liquid. It is something akin to concentrating 1 part, and continuing to heat it while the other 99 parts have been brought to the same condition. Perfect evaporation by

means of steam heat means minimum exposure to the heat and air; it must be continuous, so that we may withdraw the product from the influence of heat as soon as we obtain it in as highly concentrated a condition as is possible in a continuous process.

LINSEED CAKE is the subject of a very able paper by Mr. F. J. Cook in the Journal of the Royal Agricultural Society of England. It seems that for some time back linseed cake has been very poor in oil. That is due, we presume, to improvement in the oil-pressing machinery; but live stock, it would seem, were not the better for it. The cake generally obtainable contains 6 to 7 per cent., and the best 15 to 16 per cent. of oil, but the latter is rare. With cakes of these qualities sheep were fed, other food being, of course, given at the same time. The results were that in the course of four months the sheep which had been fed on cake low in oil increased 33.4 lbs. per sheep, and those fed on the better cake increased 38.3 lbs. It is worth noting that the low-quality cake contained 6 per cent. more albuminoids, mucilage, sugar, &c., than the other, and although this was the case, not only did the sheep become weightier more rapidly on the oilier cake, but experts, who did not know the circumstances, declared that they were in much superior condition.

BRIGHT indeed is the nimbus of honour which surrounds the head of the tradesman who has secured the distinction of being appointed purveyor to some distinguished member of the Royal family. But there are dark spots amidst the glory, as we found out the other day when we asked a well-known West-end tradesman why he did not apply for permission to sport the Royal Arms. This gentleman is the happy owner of quite a bagful of orders for his commodities from the highest personages in the land; some conveyed in autograph, some through the medium of one or the other of the numerous officials who surround the Court, and whose orthography, it may be remarked, is sometimes of an eccentric character. Our friend answered in a matter-of-fact way that he had thought it over, but had arrived at the conclusion that, as a "business venture," it would not pay. For a Royal purveyor by appointment, he told us, is expected to illuminate his premises on the occasion of Royal rejoicings, to belong to certain tradesmen's clubs, to subscribe freely to quite a number of "charities," and generally to show his sense of the honour conferred upon him in a fashion which ultimately leaves him considerably out of pocket. It was possible, he thought, that the penalties of the honour might not be known in the highest quarter. Perhaps not; but, after all, we do not see much of a grievance in them. Purveyors to Demos are not unfamiliar with the Christmas-box tax.

CHLORINE-WATER.—Dr. G. Gore has recently made a communication to the Royal Society in which he shows distinctly that the decomposition of chlorine-water by light may be divided into two essentially different parts, or periods, of chemical change, and that the kinds of chemical change occurring during these two periods are largely different. During the first period, a very great and gradual loss of voltaic energy occurs, attended by formation of hydrochloric, hydrochlorous, and chloric acids. During the second period, a moderate and very slow increase of voltaic energy takes place, accompanied by decomposition of the hydrochlorous and chloric acids; a further formation of hydrochloric acid, and the production of peroxide of hydrogen. Under the influence of prolonged sunlight, the whole of the oxygen of the hydrochlorous and chloric acids united with water to form peroxide of hydrogen, and the peroxide then combined with the whole of the hydrochloric acid to form a definite "solution compound," represented by the formula $2\text{HCl} \cdot \text{H}_2\text{O}_2$.



AND

Literary Notes.

A Pocket-Book for Pharmacists. By Thomas Bayley. London: E. & F. N. Spon. Royal 32mo., 528 pages, 6s.

THE author of this Pocket-Book tells us in the preface that he commenced the work along with the late Mr. Marsh-Jones, a pharmacist; and to the two conjointly, we presume, the plan of the book is due. It may be said to be a condensation of the British and United States Pharmacopœias, so that it meets the wants of British, Colonial, and American pharmacists. It is divided into nine sections, viz., *Materia Medica*, *Pharmacy*, *Botany*, *Latin*, *Medicine*, *Physics*, *Chemistry*, *Weights and Measures*, and *Recipes*. In each section the information given is generally more extensive than is to be found in the Pharmacopœias; for instance, under *materia medica* we find the natural orders to which plants belong, and the uses to which the drugs are put medicinally. The B.P. and U.S.P. *materia medica* are treated separately. The feature of the Pocket-Book is, however, the tabular arrangement of the information, the pharmacy section being so treated, and the result is that one sees at a glance the relations of the various members of groups to each other, and the components of each preparation. The botanical section is also a useful one, there being appended to it a glossary of terms. Equally useful are the lists of Latin prescription and medical terms. The last sections of the Pocket-Book, with the exception of the recipes, which are mainly derived from this journal, are devoted to chemical and other scientific matters, including analytical data (qualitative and quantitative, inorganic, alkaloidal analysis, official tests, &c.), solubilities, thermometric equivalents, specific gravities, and many other useful data and facts, amongst them very complete comparative tables of weights and measures. It will be seen that the scope of the book is such that it covers practically all the wants of pharmacists and pharmaceutical students. It has evidently been compiled with much care, is free from any serious errors, and deserves to be a popular pocket-book. We may add that it is handsomely bound in leather, and has a number of blank pages for notes.

Watts' Manual of Chemistry, Theoretical and Practical. Vol. i., *Physical and Inorganic Chemistry.* By William A. Tilden, D.Sc., F.R.S. London: J. & A. Churchill. Crown 8vo., 560 pp. 9s.

THIS second edition of Watts' Manual makes the fourteenth edition of the work, which is better known as Fownes' Chemistry. The science has had many changes since Fownes produced the original work in 1847. The manual then was a little smaller than one of the two volumes now is, and included physics, inorganic and organic chemistry, so fully that the book served as a text-book, and, when that function was fulfilled, as a book of reference, thereby acquiring a reputation which it has maintained up to the present time. Professor Tilden has made some notable changes in the present edition of the inorganic volume. The physics section has been suppressed in so far as its position at the beginning of the volume is concerned, but we find much of the matter incorporated with the departments of chemistry to which it applies. On the whole, this is not a disadvantage. Our experience is that pharmaceutical students were apt to consider that the 100 pages devoted to the subject constituted a complete exposition of the principles of natural philosophy, and many only found out their mistake when they got into the examination-room. Professor Tilden, therefore, does such students a service when he impresses upon them that "instruction in the principles of physics properly precedes the study of chemistry"—is, in fact, a separate subject. Another useful change in the volume is that it has been made more of a practical nature by the addition of specific instructions for laboratory experiments. This, however, does not affect its

old character as a book for the lecture-room—indeed, in many respects it enhances its value. Apart from these changes, the present edition is substantially a reprint of that which preceded it; but many passages have, we note, been re-written, and sometimes the alteration of a single word, which was necessary, has had its effect in conducing to greater accuracy. The text has been brought well up to date, and, although we notice several omissions, such as Fleitman's nickel-welding process, and the process for making pure iridium, the Manual maintains its unchallenged position as one of the best text and reference books.

Chronic Bronchitis and its Treatment: A Clinical Study. By Wm. Murrell, M.D., &c. London: H. K. Lewis.

THIS little work appears opportunely. In it the author gives the record of ten years' experience with various classes of patients. Details are given of treatment with *ipecacuanha* spray, with references to *lobelia*, *jaborandi*, and *cantharides* sprays and *spirone*; with tar and its compounds and congeners; with *terebene* and its allies, including *pinol*; with *cheken*, with *cubeb*, with *chloride of ammonium* inhalations, with various fumigants, and with *Grindelia robusta*. Dr. Murrell shows in his treatise that he is never above learning from hints gathered from the patients themselves, nor from patent medicines which have acquired a reputation. His book is a valuable and easily mastered guide to the modern treatment of the distressing complaint with which it deals.

A NEW and revised edition (the eighth) of the Liverpool Chemists' Price List has just been published, and may be obtained for 1s from Mr. Silverlock, 92 Blackfriars Road; Mr. Ellams, Old Post Office Place, Liverpool; Mr. John Bain, the hon. secretary, 122 Robson Street, Liverpool; or from the wholesale houses. A number of new drugs have been introduced, and prices have been carefully revised. They are still, however, a good bit above the cutters' level.

THE attempt to squeeze a gallon into a quart measure is carried out with fully as much success as could be anticipated in Hazell's Annual for 1890, published by Hazell, Watson & Viney (Limited) at 3s. 6d., and edited by Mr. E. D. Price, F.G.S. The volume contains over 700 pages, and gives information concerning about seven times that number of topics. It is a wonderfully compact work of reference, cleverly condensed, though, of course, inequalities could be pointed out. For example, chemistry is awarded a little over half a column; Assyriology occupies over three. But, taken altogether, it is a remarkably useful compilation.

MESSRS. BURROUGHS, WELLCOME & Co. offer to supply chemists with copies of their Medical Diaries and Visiting Lists at 24s. per dozen. These are produced in the form of a pocket-book, bound either in morocco or brocade silk, and so planned as to provide medical practitioners with convenient means of keeping notifications and records of all their transactions. With a ledger besides it would serve for all the accounts which doctors need keep. With the various skeleton pages a quantity of valuable medical reference matter is bound, and the whole is produced in elegant style. Judiciously presented the investment in a few copies ought to considerably promote business.

WE are asked to state that Her Majesty the Queen has been pleased to accept from the authoress a copy of the second edition of "The Management of Children," by a Mother, published by J. & A. Churchill.

"The Story of Chemistry," by Harold W. Picton, B.Sc., published by Wm. Isbister (Limited), (3s. 6d.), is a pleasantly-written sketch, showing the gradual development of the science out of the mysticism and the quackeries of the early adepts. A careful reading of it is calculated to inspire interest in and intelligent appreciation of the study of the more arid treatises on chemistry which have to follow. Sir Henry Roscoe, who introduces the book in a short preface, describes it as just such a short and attractive history of chemistry as has long been wanted.

Legal Reports.

SPONGE CASES.

At the Clerkenwell County Court, on Friday, December 6, before His Honour, Judge Eddis, Q.C., Messrs. Harris & Co., sponge importers, 67 Bath Street, City Road, sued Mr. Dennett, merchant, Peckham, for the sum of 6*l.* 11*s.* 3*d.*, being the amount claimed for supplying 700 sponges to the defendant in June last. The defendant denied liability on the ground that a guarantee was given by the traveller of the plaintiff that there were in the case sold 700 sponges, when it was found that it contained only 492. Mr. Osborne, solicitor, appeared for the plaintiffs; Mr. Horton, barrister, for the defendant. Mr. Samuel Hart, traveller to the plaintiffs, said he called on the defendant on June 24 last, and offered a case of sponges for the amount stated. He opened the case in the shop of the defendant, when a quantity of the sponges were thrown on the floor and examined by him. He sold the case in the same state as he had received it that morning from the warehouse. He saw several people in the shop during the time he was there. The defendant signed the receipt in the usual way.

By his Honour: The case had not been out of his trap between the time he left the warehouse and was in the shop of the defendant. The receipt was given for 700 sponges.

Cross-examined: He was of opinion that there were 700 sponges in the case which he sold. When he left, a quantity of the sponges were lying on the floor. His firm had been in business for some years.

By his Honour: The number was marked outside the case, so that there could be no mistake.

John Combs, the packer and warehouseman of the defendant, stated that he counted twice the 700 sponges in the case in question, and knew they were all right when it left the warehouse. He, in the first instance put the sponges into baskets after they were counted. The figures 701 were marked on this case. Dodson, the driver of the trap, saw the sponges thrown over the floor by the defendant, and also Hart.

Mr. Dennett was called for the defence, and said that after looking at the sponges he agreed to buy them for the price named. He asked the traveller if he was sure 700 were in the case, and he replied, "Oh, I will guarantee the number." On the faith of that he signed the book for the case of 700 sponges. Shortly after the traveller left he counted the sponges with his three assistants, and found there were only 492 in the case. They checked the number twice. He wrote to the plaintiffs, and told them that there were only 492 in the case, and asked whether he should return the case less one sponge sold, or would they credit him with the balance. They replied, stating that the full quantity was in the case, and refused to make any reduction. He sent back the case, which was, however, returned, and it now lay at the carrier's. He sold one of the sponges to another traveller for 3*d.*, who saw the case on the floor. Cross-examined: He checked the goods in the ordinary way, and did not suspect the firm, although it was the first transaction with them. No customer came into the shop before the sponges were counted. Two of the defendant's assistants gave corroborative evidence. Mr. Osborne contended that, as the defendant had broken bulk by selling one of the sponges, he was not entitled to return the remainder. His Honour said that the defendant bought the sponges on the faith of the assurance given by the traveller, coupled with the entry in the book and the number marked outside, that the case contained 700 sponges. When he found that it did not contain that number, he at once returned it, which he was entitled to do. Looking at all the circumstances, he gave judgment for the defendant, with costs, as the proof lay with the vendor to show that 700 sponges were in the case sold.

The same day, before Judge Eddis, Messrs. Harris & Co. sued Mr. A. Tennant, of 29 Sussex Place, South Kensington, chemist and druggist, for 11*l.* 11*s.* 6*d.*, for goods sold and delivered. Mr. Oscar Osborn appeared for the plaintiffs, and Mr. Spencer for the defendant.

Mr. Osborn said he was in a difficult position, as his clients

were engaged in a case which was that day being tried in the Greenwich County Court. He was, therefore, unable to call any witnesses, and could only put in certain documents relating to the claim, which was for the value of a quantity of sponges supplied by the plaintiffs to the defendant, who, it appeared, had paid into court the sum of 8*l.* 16*s.* 8*d.*, the actual amount in dispute being 2*l.* 15*s.*

The defendant was then called, and deposed that he was a chemist. In July last the plaintiffs' traveller called upon him, and produced a case of honeycomb sponges. He examined them, and as far as texture, size, and shape were concerned they appeared to be satisfactory, and he agreed to purchase the case. He did not tear any of the sponges, as he had never found it necessary when purchasing sponges to do so. They were bleached sponges, and the plaintiffs' traveller said he would guarantee that they would stand from twelve to eighteen months' hard wear and tear. Witness purchased the sponges on that warranty. He did not consider himself an expert in valuing sponges. About six weeks after this transaction one of his customers, to whom he had sold two of the sponges in question, brought them back to him. (Witness produced a number of the sponges, the centre portions of which were discoloured and evidently rotten. They were handed up to his Honour for examination.) The trade price of the sponges was 2*s.* 6*d.* each, and he sold them for 3*s.* 6*d.* The sponges produced were absolutely worthless. He had sold some of them, but had twenty-two on hand. The sponges were not, apparently, in a rotten condition when sold to him. They had been rinsed in an acid, and he accounted for their present condition by their not being properly rinsed out. The acid was used to make them white. At the same time, he purchased of the plaintiffs a case of Florida sponges. He wrote to the plaintiffs pointing out what had happened with regard to the honeycomb sponges, and stating that the damage done to his sponge business was incalculable. He enclosed a cheque for 8*l.* 16*s.* 8*d.*, and also asked them to take back the worthless sponges which he had not sold. In reply, the plaintiffs wrote refusing to accept the cheque, and he had paid the amount into court.

Cross-examined: He inspected the goods before he bought them as far as he thought necessary. 3*s.* 6*d.* was a reasonable price to charge for a sponge of good quality.

Mr. Thomas Hawkins (Messrs. Orridge & Co.), a valuer of chemists' businesses, of twenty years' experience, said he had examined the sponges, and found they had been subjected to a process of bleaching, the object being to improve the colour. The acid used had in this case rotted the sponges. He believed that the substance used had not been washed out, and most of the sponges were now worthless.

Cross-examined: The best kind of sponges were not bleached, but bleaching was a common practice in the trade. He had seen sponges in as bad a condition before, but not often. One or two of them might be worth a few pence. The texture was much too soft for an ordinary sponge. The effect of bleaching was detrimental, even if properly done.

Mr. Henry Maynard, carrying on business as C. H. Warner & Co., wholesale and retail chemists, said he had had considerable experience in regard to sponges. He should describe these sponges as rubbish. They were bad-coloured sponges bleached. The object of bleaching was to make a bad sponge look like a good one. The acid had been left in the sponges and rotted them.

Cross-examined: He had sold bleached sponges, but was not a sponge merchant.

By the Judge: 2*s.* 6*d.* would be a fair wholesale price to charge for the sponges. In their present condition they were valueless.

His Honour said he had little doubt that these sponges were, to use a common expression, made to sell. According to the defendant's evidence, which was uncontradicted, the plaintiffs' traveller guaranteed that the sponges would wear from twelve to eighteen months. There was no doubt that the sponges were rotten, this condition arising from improper bleaching. Under these circumstances he must hold that the warranty ought not to have been given, and he should give judgment for the defendant in respect to the 2*l.* 15*s.* in dispute, with costs. He presumed the defendant would send back to the plaintiffs the sponges still in his possession.

Mr. Spencer: Oh, yes; with pleasure, your Honour.

BANKRUPTCY REPORTS.

Re WILLIAM WILKINSON RICHMOND, Penrith, Chemist and Manufacturer of Artificial Teeth.

THE first meeting of creditors under this failure was held at the office of the Official Receiver, Carlisle, on December 2. The statement of affairs showed gross liabilities, 294*l.* 11*s.* 10*d.*; creditors fully secured, 9*l.* 14*s.* 6*d.*; preferential creditors, 15*s.*; leaving 284*l.* 2*s.* 4*d.* to rank for dividend. The assets are practically *nil*, the stock-in-trade having been seized by a creditor for rent, and the book debts being very doubtful. The Official Receiver observed that the debtor commenced business as a chemist in Carlisle in 1879 with a capital of 450*l.* given to him by his father. He soon after relinquished the business and commenced practice as a dentist, and had since practised as such at two addresses in Carlisle and at Penrith. He had not apparently had any exceptional losses, but attributed his failure to gradual falling off in business. Since May, 1885, he had kept no books, nor had he at any time prepared any balance-sheet or statement of affairs. The receiving order was made on the debtor's own petition, and as he had no proposal to make, he had been adjudicated a bankrupt. The matter remains in the hands of the Official Receiver.

At his examination held on the same day at the Court House, Carlisle, the debtor, in reply to the Official Receiver, said he was never in partnership with his brother, but on his death in 1882 he had succeeded him and continued his business of dentist. He had to pay his brother's widow a portion of the profits. His losses while in Lowther Street, owing to the heavy household expenses, had more than run away with his remaining capital, and when he left, about four years ago, to go into Victoria Place he must have been insolvent. The examination was adjourned till December 11.

Re JOHN ROBERT EVANS, The Pharmacy, Vale Street, Denbigh, Chemist.

THIS debtor came up for his public examination on December 5, before Mr. Registrar Glynn Jones, at the Bangor Bankruptcy Court. In reply to the Assistant Official Receiver, the debtor said he had kept proper books of accounts, but had not prepared a balance-sheet or taken stock. He became aware of his insolvency six months ago, when he was first pressed by his creditors. He had incurred fresh debts since then. He hoped to be able to sell the business for 600*l.*, and thus realise sufficient to pay his debts in full. The 600*l.* included 300*l.* for goodwill, though he admitted he had not paid any goodwill himself to his predecessor, who was also bankrupt. His turnover for 1888 was 945*l.*, and upon this he reckoned he made an average gross profit of 20 per cent. His rent was 45*l.* per annum, and the whole of his outgoings, including household expenses, he put down at 138*l.*, though he afterwards admitted that this amount was underestimated. The examination was adjourned for a month for the filing of a cash account and a profit and loss account for the last three years.

Re R. FINCH, "The Silvertown Chemical Works," Victoria Docks.

THE receiving order in this case was made on November 1. The accounts filed show secured debts to the amount of 16,875*l.* 10*s.* (the value of the securities being returned at 16,897*l.* 6*s.*); other liabilities, 7,545*l.* 1*s.* 7*d.*, of which 6,636*l.* 2*s.* 2*d.* is expected to rank; unsecured debts, 3,341*l.* 15*s.* 10*d.*; and preferential claims, 425*l.* On the other side, the stock-in-trade, said to have cost 4,993*l.* 14*s.* 5*d.*, is expected to realise 4,053*l.* 14*s.* 5*d.*; the loose machine tools, furniture, &c., 363*l.* 17*s.* 8*d.*; and the good book debts, 81*l.* 10*s.* 11*d.* Other debts, to the amount of 3,814*l.*, have been attached by a creditor. According to the Official Receiver's observations, the debtor states that in October, 1888, having then a capital of his own of 250*l.*, he purchased the lease and plant of the Silvertown Chemical Works for 16,000*l.*, raised on mortgages of the property; the stock, &c., amounting to a further sum of about 7,000*l.*, which was paid

for by means of advances. The debtor further states that the purchase was made with the object of selling the works to a company intended to be formed, and with which view an agreement was entered into between himself and a person who financed him in the undertaking; but the attempts to float the proposed company proving unsuccessful, the business was carried on in the usual course until April last, when, in consequence of the attachment of debts to the amount of 3,814*l.* by his agents in France, a meeting of the creditors was called, and a manager appointed for them. On August 13 a deed was executed by the debtor, assigning the estate to trustees for the purpose of sale to a company, but this deed did not appear to have been acted upon. The person by whom the debtor appeared to have been financed was now included under the head of "other liabilities" as an unsecured creditor for 6,636*l.* 2*s.* 2*d.*, for balance of advances made for purchase of stock, and for carrying on the business. This was exclusive of a sum of 5,258*l.* 4*s.* 4*d.*, for which the aforesaid person appears as a fully secured creditor in respect of a mortgage loan of 5,000*l.* for the purchase of the property. The right of the French agents to the debts mentioned is now being disputed in the French courts. The debtor attributes his failure to the attachment of the debts and the consequent stoppage of the business. The deficiency is partly attributed to the heavy expenses incurred in unsuccessful attempts to form companies to take over the works. Creditors appearing as fully secured are stated to hold mortgages on the leasehold works and plant, the value of which, for the purposes of the statement of affairs, is estimated by the debtor for forced realisation at the amount of mortgage debt and interest, viz., 16,826*l.*, although he believes they would produce considerably more if disposed of by private contract.

Gazette.

PARTNERSHIPS DISSOLVED.

Bernstein & Vogt, Jewry Street, City, chemical and drug merchants and agents.

Ward & Priestley, Twickenham and elsewhere, general medical practitioners.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDERS.

Gray, John, Birmingham, dentist.

Lloyd, David, junr., Shanklin, surgeon.

Ridout, George Vatchel, Leeds, surgeon-dentist.

Robinson, James, Bury, formerly of Ramsbottom, washing-liquor manufacturer, formerly bleacher's manager.

Thompson, James Andrew Baird, Totnes, doctor of medicine and surgeon.

NOTICES OF DIVIDENDS.

Macmillan, Colin, Nottingham, surgeon—first and final div. of 3*s.* 9½*d.*, Dec. 16, Official Receiver's offices, Nottingham.

Simpson, Thornton Gerald, Victoria Road, Hackney Wick, and Hackney Road, N.E., physician (carrying on business in partnership with W. G. McFee, under the style of Simpson & McFee)—composition of 2*s.* 6*d.*, any day, Chief Official Receiver's offices, 33 Carey Street, Lincoln's Inn.

Skene, William, West Bromwich, surgeon and doctor of medicine—second and final div. of 4*d.*, Dec. 10, Whitehall Chambers, 25 Colmore Row, Birmingham.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

Lloyd, David, junr., Shanklin, surgeon—Dec. 18, Holyrood Chambers, Newport, Isle of Wight; Dec. 18, Court House, Newport, Isle of Wight.

Thompson, James Andrew Baird, Totnes, doctor of medicine and surgeon—Dec. 17, Castle Hotel, Totnes; Dec. 19, County Court, East Stonehouse.

ADJUDICATIONS.

Gray, John, Birmingham, dentist.

Ridout, George Vatchel, Leeds, surgeon-dentist.

ORDER ON APPLICATION TO APPROVE SCHEME.

Simpson, Harry Ernest, Richmond Road, Hackney, and City Road, E.C., physician and surgeon (carrying on business with W. G. McFee, as Simpson & McFee)—composition of 2*s.* 6*d.*

EXTRACT FROM THE REGISTER OF DEEDS OF ARRANGEMENT.

The following deeds of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1887. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision in the Act, making any of these arrangements binding upon dissenting creditors.

Watson, Robinson Henry, 41 Arcade Buildings and 6 Water Street, late of 3 Vine Street and 38 Leeds Road, Nelson-in-Marsden, patent medicine dealer. Trustee: Samuel Scruton, Micklegate, York, wholesale druggist. Date, Dec. 5; filed, Dec. 7; unsecured liabilities, 301*l*. 19*s*. 11*d*.; estimated net assets, 15*l*.

	£	s.	d.
Goodall, Backhouse & Co., Leeds	10 0 3
Goodhouse, Wall & Co., Liverpool	12 0 11
Potter & Clarke, London	11 9 9
Raines & Co., York	143 1 2
Stagg & Morgan, London	12 15 11

TRADE-MARKS APPLIED FOR.

THE Trade Marks Journal publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, at any time within one month of the date of this journal, give notice in duplicate, at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." All communications to be addressed to H. Reader Lack, Esq., Comptroller General, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

From the "Trade Marks Journal," December 11, 1889.

Design showing a horse and lion rampant on shields; for chemical substances and goods covered by Class 1. By The Badische Anilin & Soda Fabrik, Ludwigshafen-on-Rhine, Germany. 92,564.

"HOUSEHOLD SODA POWDER," on shield; for soda powder. By Gaskell, Deacon & Co., Widnes. 84,695.

"VRIL"; for chemical substances. By Bovril (Limited), 30 Farringdon Street, E.C. 91,397.

"ELECTRIC PILLS" and design of a bull, and wording; for pills. By Josef Schuball, 195 West Twelfth Street, Chicago, U.S.A. 92,615.

"DOOGHA"; for medicines, aerated waters, and perfumery. By C. M. Luxmoore, 529 Battersea Park Road, S.W. 92,661, 92,662, 92,663.

"HARLEQUIN BRAND," and sketch of a harlequin's head; for food substances. By Child & Abraham, 32 Fenchurch Street, E.C. 91,258.

Figure of a youth nailing flag to a mast, and wording; for food substances. By G. C. Heslop, 180 High Street (East), Sunderland. 91,564.

"WINCARNIS"; for food substance. By Coleman & Co. (Limited), Norwich. 92,293.

Design of flag on oval label; for mineral and aerated waters. By Hawkes, Somerville & Co., 56, Tower Buildings, Liverpool. 93,002.

"WALL-FLOWER," and other words, on label; for common soap. By M. Ayrton, Dewsbury Moor, Yorkshire. 86,910.

"WEAR WELL"; "Wash well"; and "Wash and wear," with monogram; for perfumed and common soap, starch, blue, &c. By Hodgson & Simpson, Calder Soap Works, Wakefield. 87,296-87,297, 87,298-87,299, 87,300-87,301.

"GREAT NORTHERN"; for candles, oils, &c., and perfumery, &c. By Hodgson & Simpson, Calder Soap Works, Wakefield. 91,468-91,469.

"SUGAR SOAP"; for a detergent powder in Class 47. By F. Lyon, 94 & 96, Harleford Road, Lambeth, S.E. 92,692.

"SONNENSCHNEIN"; for goods in Class 47, except oils and matches. By Lever Brothers, Port Sunlight, near Birkenhead. 92,732.

"THE COURT PERFUMERY COMPANY" and signature; for perfumes. By Oppenheimer Brothers & Co., 1 & 3 Sun Street, Finsbury, E.C. 85,997.

"POUDRE DU MOND ELEGANT" and signature; for toilet-powder. By G. H. & W. Oppenheimer, trading as Zeno & Co., 1 & 3 Sun Street, Finsbury, E.C. 92,551.

Personalities.

MR. ARTHUR HART, homœopathic chemist, late of Sloane Street, has removed to 43 Albert Gate, Knightsbridge, S.W.

MR. ADAM L. WILKIE is opening a pharmacy in Gala-shiels, N.B. He had experience there in Mr. Ross's establishment.

MR. J. B. BENJAMIN, formerly assistant with Messrs. Southall, Birmingham, and Mr. J. Munday, of Cardiff, has opened a well fitted up pharmacy at Penarth.

MR. J. W. NORBS, of 285 East India Road, Poplar, has taken the premises, 499 Barking Road, as a branch establishment, and intends shortly opening them as a first-class chemist's and patent medicine stores.

MR. J. PARKINSON, chemist and druggist, of Coventry, has disposed of his business to Mr. Thomas Sellors, chemist and druggist, of that town, who will in future carry on the joint business at his present establishment, 7 Cross Cheaping, Coventry.

WE copied from the *Gazette* last week the notice of dissolution of partnership of the firm of Crowden & Garrod, brush manufacturers. It should be added that Mr. James Crowden retires, and that Mr. Robert Hill Crowden remains as the sole proprietor of the business, and will carry it on under the old style.

MR. G. B. CLARKE, chemist, of Woburn, has lately celebrated his "silver wedding." Mr. Clarke, who has been churchwarden of the town since 1872, and is highly appreciated and esteemed, entertained a large party of friends at his house throughout the day, and in the evening invited the bell-ringers, who had been ringing in his honour at intervals throughout the day, to supper at the old Parsonage House.

FAIR DISPENSERS.

[Five ladies—Misses Brittain, Moore, Cook, and Bowen—have recently qualified and been appointed dispensers at various hospitals.]

HERE are ladies as dispensers, each a fascinating fixture
In the surgery, presiding over measures, weights, and scales;
They will spread a careful blister, or will make you up a mixture,
That should surely prove more potent than the same dispensed by males.
They're forsworn the fads of fashion wearing ermine or cbinebilla,
But they understand prescriptions and the doctor's mystic signs;
Does your system need a tonic, there's the pleasant cascarrilla,
And the piquant tinct. aurantii, like bitters ere you dine.
You will never shirk your physic when a maiden wields the measures,
And drops in the minim, or the calculated drachm;
You may rank your mustard plaster 'mid the first of earthly pleasures,
And you'll take her pretty powders without asking for the jam.
When a fairy hand compounds it, sure a dainty draught or potion
Should possess a unique value for the cure of human ills;
You will rub it in quite gaily when a lady makes a lotion,
And will even, pray believe me, find there's poetry in pills.
Every bottle, when it's opened, will be sweet as any posy,
And you'd like to take more doses than the label says is right;
For they'll tempt you on occasion with the sweet syrupus roseæ,
And the charming tinct. lavandule will flash upon your sight.
Give the ladies, then, a bouquet of the aloe barbadensis,
With the folia digitalis crown the pharmaceutical belle;
Fill the goblet vino xerici to each one who dispenses,
May they never need the physic they themselves make up so well.

H. S. C., in the *St. James's Gazette*.

BRITISH AND FOREIGN CONSULS' REPORTS.

CHINA.

Cuttle-fish Industry at Ningpo.

One of the principal and, perhaps, most profitable industries of the Ningpo district is the ming fu, or cuttle-fish, trade. From the latter part of April until the closing days of June, the number of small, and somewhat barren islands of the Chusan Archipelago, situated within a radius of fifty miles of Chinhae (at the mouth of the Yung river), swarm with men engaged in the occupations of cleaning and drying the fish for the Ningpo market, and the adjacent waters are literally covered with boats engaged in fishing.

The number of boats which leave Ningpo and its immediate vicinity may be placed at 12,000, with an additional 2,000 from the numerous small hamlets along the coast and larger islands of the Chusan group. Each boat carries an average crew of six men. These men are drawn, principally, from the agricultural classes, receiving each from \$8 to \$20 for their services during the season. The cuttle-fish boats are from 25 to 30 feet in length, with a beam of 7 feet. They are furnished with a single lug-sail, usually made of foreign T cloth, tanned with mangrove bark; they are worked with two, sometimes three, sculling-oars, with which the boats are propelled with astonishing speed. The boats, as a rule, work in pairs, a bamboo fastened at the bows of each to keep them separated, with a space of about 20 feet between. To the bamboo is attached the large net. Others, again, catch the fish by means of a square net fastened at the corners to the ends of two slender bamboos which cross at right angles, and sewed together in the middle. These bamboos, with the attached net, are suspended from a stout beam which projects some distance over the bow, and has fastened to the in-board end a heavy weight for facilitating the raising of the net. This is used in shallow water, and principally at night, when a fire is kept burning in a pan in the bow of the boat to attract the fish. One or two men attend to the working of this net while the rest of the crew are employed in scooping in the fish with hand-nets. The boat loaded, the fish are landed, cleaned, and sun-dried. The drying occupies about three days. They are then shipped in packages of about 333 lbs. each by small junks to Ningpo. The cuttle-fish is called by the Chinese *wu tse* (black thief); *ming fu* is the commercial name of the fish when dried. The black liquid secreted by the fish was used as a substitute for ink, but was abandoned, as it faded after a lapse of a few years.

SWEDEN.

Cranberry Wine.

A considerable export trade in cranberries has sprung up of late from Stockholm with Lübeck and Stralsund, in Germany. It is stated that these berries are imported by the Germans principally for the manufacture of a red wine which strongly resembles the rich French Rhone wines, both in colour and flavour.

THE ARGENTINE REPUBLIC.

Trade Increasing Rapidly.

Trade in the Argentine Republic has been booming wonderfully of late, as the Custom House statistics of the country show. The returns for 1888 are not yet to hand, but those of 1887 show a wonderful improvement of both exports and imports in every direction. The imports of alimentary substances increased from \$12,800,000 to \$15,900,000, and of drugs and chemicals from \$3,700,000 to \$4,200,000.

The recent development of the trade with Germany is attracting general attention. Its extent will appear from the fact that the imports from that country into the Argentine have risen from \$2,365,000 in 1880 to \$12,108,000 in 1887.

During the same period the imports from France and the United Kingdom have trebled, and from the United States quadrupled.

The following are the shares of the imports of drugs and chemicals in 1887 from each of the principal foreign countries:—

U. Kingdom	France	Germany	U. States	Belgium
\$1,227,134	971,705	604,262	339,118	183,373

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., December 12.

THE public sales for the present year are almost at an end now, and business in the drug and chemical branches generally has been very quiet. The principal alterations for the week may be summed up as follows:—In drugs, opium is dearer; raw camphor on the spot, castorum, fine gum benjamin, vanilla, saffron, ipecacuanha, and Angostura tonquin beans are also quoted higher, while Japan pepper-mint oil and menthol have also risen. Cardamoms, ordinary gum benjamin, camphor for arrival, senna, and quassia wood are lower, and buchu is also a trifle easier. Rhubarb remains steady, and Cape aloes have been inquired for. In chemicals, cream of tartar, citric acid, and tartaric acid are a little easier; bleaching-powder and oxalic acid quite demoralised; and chlorate of potash and quinine lower. Antimonial preparations, camphor, morphia, and yellow prussiate of potash are dearer. Glycerine is also higher. Block gambier is a trifle easier, shellac irregular, but tending lower, Amrad and Kurrachee gums higher.

TO-DAY'S drug sales were the last of the present year. The first drug auctions in 1890 will be held on Thursday, January 9.

THE NEW DOCK CHARGES, so far as the drug, chemical, and drysaltary trades are concerned, have not yet been issued, the revised list for wines and spirits being the only one which is obtainable up to this day.

EXTENSION OF THE ALCOHOL DRAWBACK IN GERMANY.

—An order has just been issued by which German soap-makers are allowed to use alcohol in their manufactures free of duty, provided they conform to certain regulations. These rules are very simple, and consist simply in the manufacturer giving notice on an official form of the quantity of spirit which he intends to use, and the time when the manufacturing process is to take place. The alcohol is then forwarded to the works in bond, and in officially sealed packages, and at the appointed hour an Excise officer attends at the works, breaks the seal, and watches the incorporation of the alcohol into the soap-stock until the spirit has been fully mixed with the caustic-soda lye. The concession has been made specially in the interests of the manufacturers of transparent toilet soaps. For the manufacture of perfumery with duty-free alcohol facilities are already given.

THE NEW DRUG SHOWROOM.—The drug trade have now had nearly two months' experience of the new drug showroom in Crutched Friars, and it cannot be said that the result is altogether favourable. The room is a spacious one, and would answer the requirements thoroughly well—better, in many respects, than the old room in Fenchurch Street, but plain daylight, a factor of enormous importance in the correct estimation of the value of drugs, is in far too short a supply. The sloping roof of the room is now glazed in the centre only, the sides being simply provided with a few small windows, and the result is that goods exhibited in the corners of the room are put at a considerable disadvantage compared with those placed under the centre of the roof. We understand that the druggists are about to write to the Dock Company to suggest the glazing of the entire roof, and that there is some prospect that their wishes will be acceded to in the coming spring.

THE CEYLON CINNAMON SYNDICATE.—Mr. William Jardine, the Ceylon planter who has busied himself with the construction of this syndicate of cinnamon growers, reports that 106 estates, with a total of 9,952 acres, have now entered into an agreement, the proprietors binding themselves upon their word of honour not to prepare any cinnamon chips, or to allow cinnamon leaves to be used for the distilling of cinnamon-leaf oil. The agreement dates from November 1, and is entered into for the space of two years. For the last ten years, the average shipments of cinnamon chips have been about 500,000 lbs., the maximum export of 629,000 lbs. having been in the season 1884-5. It is thought that, if successful, the effect of the action of the syndicate will be to reduce the shipments by 250,000 lbs. It must not be forgotten, however, that though the principal growers have signed the agreement, a considerable number of others still retain their liberty of action.

THE DUTCH GOVERNMENT CINCHONA.—A memorial has been presented to the Dutch Minister of Colonies by an influential section of the Java planters asking that the minimum price at which Government cinchona shall in future be sold in Holland shall be 15c. per unit, equal to about 2½d. per unit per lb. In their memorial the planters declare that the present low state of the market is principally due to the action of the quinine manufacturers themselves, who are constantly depressing the market by offering at a low figure for forward delivery, for the purpose of buying cheap bark. This action is attributed to the circumstance that the manufacturers have given up looking for a profit on the sale of sulphate of quinine and recoup themselves by the profit accruing from a number of by-products. It is suggested that the Government can agree to the request of the cinchona-planters with all the more justification because they have recently intervened in a somewhat similar manner on behalf of the coffee-growers.

ACIDS.—*Citric* very dull of sale, and rather easier again at from 1s. 3¾d. to 1s. 4d. on the spot, and 1s. 4½d. for forward delivery. *Oxalic*: On the spot there is no business doing, but for next year 3d. per lb. is quoted. It seems quite uncertain yet what course the article will take, but at present it does not look as if the combination is likely to be renewed. *Tartaric* neglected at 1s. 3¾d. to 1s. 4d.

ALOES.—We hear that *Cape* aloes have been inquired for privately, and holders ask very high prices. To-day only seven cases were offered, one of which, very common and crossy, sold at 10s. per cwt. There have been no arrivals from South Africa. Of *Curaçao* 155 packages offered to-day, and about two-thirds sold without reserve at very low prices. Fair brown liver, 38s.; dark ditto, 29s. to 30s.; good fine bright Capey, 20s. to 26s.; ordinary burnt, down to 25s. *East Indian*: Only a few lots offered, which brought 26s. 6d. per cwt. for 14 kegs very ordinary dark *Socotrine*, and 5l. for good *Zanzibar hepatic*.

AMBERGRIS.—There was none offered to-day, but the scarcity of fine quality still continues, and we hear that privately 170s. per oz. is now asked.

ANTIMONIAL PREPARATIONS are dearer again, in sympathy with antimony.

ANTIMONY.—Crude Japanese: We do not know of anything offering; 55l. was the last price quoted a few days ago. *Regulus*, 75l. per ton.

BENZOL firmly held at 3s. 4d. to 3s. 5d. for 90-per-cent., and 2s. 7d. to 2s. 8d. for 50-per-cent.

BLEACHING-POWDER quite demoralised. Next year's quotation on the Tyne is 5l., and on the spot from 5l. to 5l. 5s. London quotations entirely nominal.

BUCHU.—Ten bales were offered to-day, and sold at about ¼d. per lb. decline. Good round green leaves at 2½d. to 2¾d. per lb.

CALUMBA.—The market remains quiet with very little demand; about 200 bags were offered to-day and bought in. Fair yellow mixed root, all sizes, somewhat wormy, at 20s. to 26s. per cwt.

CAMPHOR (CRUDE).—A certain change in the position of

this article is perceptible. On the spot the market is firmer than ever, a portion of the already very attenuated stock having changed hands at 160s. per cwt.; but it is said that the holders of the few remaining lots (our first-hand stock is now put down at not over 30 tubs) stand out for 180s. per cwt. now. So much for the available supply. Early this week a parcel of Japan camphor, for Dec.-Jan. shipment, was said to be offering at 135s. c.i.f., or 5s. below the top prices, and subsequently a sale of 200 tubs in the same position at 130s. c.i.f., was freely reported, but the truth of this sale is contradicted by the "bull" party, who say that there is nothing under 135s. c.i.f. The other side, however, maintain that both in Hamburg and in America the markets have become quite flat, and that there are several sellers, but no buyers, at 130s. c.i.f. There have been no arrivals from Japan, but a shipment is now due, although it is said to have been sold already to consumers.

CAMPHOR (REFINED).—The English manufacturers last Friday advanced their quotations another penny, as we stated they were about to do, and they now quote bells at 1s. 9d. per lb. One or two second-hand holders of German refined are quoting a limited quantity at 1s. 8d., perhaps 1s. 7½d.

CANELLA ALBA.—Fine quantity still wanting. At to-day's auctions 8 bags, very small broken and badly damaged, sold subject to approval at 9s. 6d. per cwt.

CANNABIS INDICA.—Seven bales very stalky and dusty grey bought in at 4d.; an offer of 2½d. would probably be accepted.

CANTHARIDES.—Good *Russian* cantharides steady at 4s. 9d. to 5s. per lb. Nine cases, very small and dusty, *Chinese* flies sold to-day at 9d. per lb. Our last week's quotation of 10d. per lb. should, of course, have been for Chinese, and not for Russian flies.

CARDAMOMS.—Of 280 packages offered for sale to-day (the assortment not being a particularly good one) about 90 packages sold at easier rates all round, the decline averaging from 2d. to 3d. per lb. *Ceylon Malabar*, medium sized grey, 1s. 9d.; medium to bold yellow, 1s. 6d. to 1s. 7d.; slightly mouldy to fair round yellow, 1s. 5d. to 1s. 6d.; small to medium brown, 1s. to 1s. 2d. *Mysore*: fine medium to bold full pale, 3s. (this being a full price); medium to bold brownish, 2s.; small round brownish, 1s. 7d.; bold long ditto, 1s. 9d.; small round yellow, 1s. 1d. to 1s. 2d.; brown, partly split, 11½d. to 1s.; small long greenish, 11d. to 11½d. per lb. *Seeds*, 1s. 7d. per lb. The exports of cardamoms from Ceylon during the current season have been heavy, the figures for the periods between October 1 and November 14 being:—1889, 38,854 lbs.; 1888, 19,449 lbs.; 1887, 32,086 lbs.

CASCARA SAGRADA quiet and unchanged.

CASTORUM.—On behalf of the Hudson's Bay Company, 1,759 lbs. Canadian castorum were offered at auction on Wednesday, and the entire quantity was disposed of with excellent competition at very high rates, firsts being about 6s. per lb. dearer than at the preceding auction. Firsts sold from 45s. to 50s. 6d. per lb. for good to fine; fair to good seconds, 44s. 6d. to 47s. 6d.; mouldy ditto, 42s. 6d. to 45s. 6d.; damp and mouldy to fine sound thirds, 30s. up to 40s.; and pickings at 31s. to 34s. per cwt. At auction to-day another parcel of 195 lbs. was offered, about half of which was disposed of at from 20s. for very low pickings up to 39s. for good thirds.

CHAMOMILES.—No change.

CINCHONA.—To day's assortment of South American barks was of a very ordinary character. Of one parcel of 16 packages *Guayaquil* bark all but two sold at 6½d. to 9½d. per lb. for long thin brown quill, and from 3½d. to 5½d. per lb. for damages. *Lima* character, dull bold split quill, 2d. to 2½d. per lb. Twenty bales *Carthagena*, very bold dark bark, said to have cost 3s. 10d. per lb. when imported in 1881, sold at 4d. per lb. For 31 serons *Hard Pitayo*, also imported in 1881, and then worth 3s. 8d. per lb., a bid of 3½d. was refused. One lot of unusually fine heavy mossy Java bark, red druggists' quills, was bought in at 3s. 9d. per lb. nominally. Our imports of cinchona from all quarters this week have been 471 packages. The exports of cinchona bark from Colombo during the first two months of the new season have been very small, the figures, according to tele-

graphic information, being:—October 1 to November 30, 1889, 1,350,000 lbs., against 2,250,000 lbs. in 1888, 1,250,000 lbs. in 1887; 2,232,000 lbs. in 1886, and 3,000,000 lbs. in 1885. The arrivals at Colombo from the interior by the railway during the same period were 620,000 lbs. only, against 1,880,000 lbs. in October-November, 1888.

COCA LEAVES.—Firmly held. At to-day's auctions only 1 bale (238 lbs.) bold to very brown *Huanoco* leaves were sold cheaply at 8*d.* per lb., subject to approval.

COLOCYNTH.—Quiet, and only in retail demand. Thirteen eases fair pale, partly seedy peeled *Turkey* apple held at 1*s.* 5*d.* per lb.

COPPER (SULPHATE).—Firm, on the spot, 23*l.* to 24*l.*; first half of next year 22*l.* 15*s.* is asked.

COWHAGE.—Ten tins, altogether 150 lbs., were shown; 10*d.* is wanted for fairly good, and 8*d.* to 9*d.* for rather stony mixed.

CREAM OF TARTAR.—Quiet, and perhaps a shade easier. Best white French crystals 112*s.*, perhaps 111*s.*, per cwt.

CROTON SEED.—The high prices recently spoken of seem to have been more or less fanciful, for the 131 bags brought to auction to-day did not meet with any exceptional demand. For 16 bags of good bright quality no offers were made. A bid of 15*s.* per cwt. for dark seeds was refused.

CUBEBS quiet, though holders still ask high prices; but in the absence of orders a definite quotation can scarcely be given. Thirty-seven bags were offered to-day. The best lot of 12 bags good, rather small, and somewhat dusty genuine berries is held at 26*l.* 10*s.* The others were bought in from 25*l.* down to 23*l.* per cwt.

CUTTLEFISH.—Nineteen cases ordinary dark small and broken from Bombay were sold from 3½*d.* to 5½*d.* per lb.

DRAGON'S BLOOD.—Only 6 cases shown; very poor finger out of reed bought in at 5*l.* 15*s.* per cwt.

ERGOT OF RYE quiet. We do not hear of any business of importance. Values remain unchanged.

EUPHORBIA PILULIFERA.—The holder of 3 eases good whole herb from Bombay wants to realise, and bought in his goods at 2*s.* 9*d.* per lb. nominally to-day. Another lot of 3 bags very dusty and stalky herb was bought in at 2*s.* 6*d.*

GALLS remain firm, both for *China* and *Turkey*, but we do not hear of any business.

GAMBIER.—A shade lower, block having sold at 26*s.* 3*d.* per cwt. for December and January; 26*s.* January and February.

GAMBOGE.—Only two cases good bright picked pipe were offered to-day; the owner still wants 13*l.* per cwt.

GLYCERINE.—Much firmer, and the makers are asking prices up to 66*s.* per cwt. for the best German double distilled (s.g. 1,260), but there are still a good many second-hand lots in the market, which may be had below these quotations.

GUM AMMONIACUM.—Nothing was offered to-day, and the article seems very scarce in the private market. For good clean drop from 40*s.* to 46*s.* is asked.

GUM ARABIC.—There is still a good demand for the better grades of *Trieste* picked gums. Two barrels fine white picked *Mogadore*, mixed sizes, were bought in at 16*l.* per cwt. nominally to day. One bale of good bold bright *Brazilian* drop sold cheaply at 40*s.* per cwt., and for rather dark glassy *Australian* 22*s.* 6*d.* was refused. In East Indian gums we hear of sales at improved rates since the last auctions. *Amrads* have been inquired for for *America*, and some *Kurrachee* of the grade which sold at 47*s.* to 50*s.* at the last auctions is reported to have since changed hands at 60*s.* per cwt., with no further sellers.

GUM BENJAMIN.—A few eases of *Siam* gum were offered to-day, and sold at irregular rates, the best lots being very dear indeed: 14*l.* to 14*l.* 10*s.* for fair block, with a small proportion of loose small almonds. Blocky dull brown siftings sold cheaply at 85*s.* to 90*s.* "without reserve"; and very low grey at 65*s.* per cwt. Of *Sumatra* gum a few lots were shown, and are held at high rates. A few cases *Penang* sold at 5*l.* 7*s.* 6*d.* for brown, fairly almondy, mixed seconds; and

77*s.* 6*d.* to 82*s.* 6*d.* for ordinary false packed. Fine almondy *Palembangs*, in small boxes, brought 52*s.* 6*d.*; ordinary resiny, 42*s.* 6*d.* (an excessively high figure); and dull drossy, 30*s.* per cwt.

GUM ELEMI.—Fine white Manila remains very dear. 13 cases selling to-day at 45*s.* per cwt., while another lot of 8 cases, very yellow, and partly dirty mixed, brought the high price of 36*s.*

GUM EUPHORBUM.—Holders are asking a little more money, but no sales were made; 34 serons were shown, and are quoted at 21*s.* per cwt. for grey and very dusty drop, while for dirty and drossy mixed ditto an offer of 14*s.* was refused.

GUM GALBANUM.—True galbanum is not offering, and has, in fact, been wanting on the market for a long time. Of 2 parcels offered as galbanum to-day, one was bought in at a nominal figure. The other one, consisting of 17 1-cwt. bags, imported from Aden, was a variety of *Bdellium*. It appeared in bright orange to brown-coloured almonds, partly blocked, of a strong alliaceous odour. There was an unexpectedly good competition for this parcel, and the three lots were sold at from 43*s.* to 46*s.* per cwt., partly, we believe, to American buyers. About eighteen months ago the same, or a very similar kind of gum, was offered here as "opoponax."

GUM KINO.—Twenty-one cases small good, from Bombay, bought in at 25*s.* There was no bids at 20*s.* per cwt.

GUM MASTIC.—Two eases *Persian*, which have been repeatedly shown, were up again to-day, and bought in at 6*d.* per lb.

GUM THUS.—Fifty barrels of the new American erop were offered to-day, and 18*s.* is the price named for somewhat mixed resin.

IODINE and all *Iodides* are unaltered in price.

IPECACUANHA.—Only 19 bales *South American* ipecacuanha were offered to-day, and the owners demand very high prices. They sold five serons at 1*d.* to 2*d.* per lb. advance over the last sale rates: thin wiry sound, 6*s.* 10*d.*; brown and rather wiry to fair, slightly damaged, 6*s.* 10*d.* to 6*s.* 11*d.* per lb. Two packages, together about 90 lbs., of ipecacuanha, grown in the *Straits Settlements* (Johore plantations), were offered to-day, and bought in at 6*s.* 10*d.* per lb., no bids being made. The root is of good colour (though slightly mouldy), very long, and well annulated, and the fracture is rather starchy. We have on several occasions called attention to the progress of the Johore plantations. One bale of so-called *Carthagena* ipecacuanha sold at 10*d.* per lb.

KAMALA.—Nine cases, 2½ cwt. each, sold at from 6½*d.* rising to 8*d.* per lb.

MERCURIALS firm as last week, on the basis of 3*s.* 7*d.* per lb. for *Calomel*.

MORPHIA.—Makers have raised their prices to some extent, and they are sanguine of being able to obtain still higher rates presently. They new quote 5*s.* 6*d.* for *Crystals* and 5*s.* 3*d.* for *Powder*, but suggest that they might at any time want 3*d.* per oz. more than that.

MUSK.—A small assortment was offered to-day, and there was almost a total absence of demand. Only 1 eaddy, first pile *Tonquin* pods, small to very bold, rather damp, blue skin and underskin, was reported sold at 90*s.* per oz., the remainder being bought in at 100*s.* nominally. Small to medium, very skinny old-fashioned pods, were bought in at 85*s.* nominally, and of third pile, mostly spurious, one eaddy very damp but well trimmed, thin blue skin, sold at 63*s.* per oz. We have imported about 1,500*l.* worth of musk from China this week, and 500*l.* worth from India.

NUX VOMICA.—A parcel of 155 packages fair silky medium to bold *Madras* sold at 10*s.* per cwt.; and 22 bags rather ordinary *Cococada* at 8*s.* per cwt. For arrival higher prices are asked—12*s.* per cwt. for fair quality.

OIL (CASTOR).—There have been several small arrivals this week from Italy and France. The market remains quiet but steady for the best qualities. Finest medicinal *Italian* up to 5½*d.* per lb. First *Calcutta*, 4½*d.* to 5*d.* asked—50 eases, no sale—were bought in at the latter price. The Liverpool market remains moderately steady. Holders continue to ask 4½*d.* for *Calcutta* seconds.

OILS (ESSENTIAL).—*Star-anise*: Several lots of unworked oil were offered at auction to-day, and a bid of 6s. 1d. per lb. was refused for one lot. We make 6s. 3d. per lb. the nearest spot quotation in the private market. *Citronella* in tins may be had at 3d. to 1³/₄d. per oz.; but bottles are very scarce, and we doubt whether any quantity could be secured at 1d. per oz. *Cajuput* firmly held for 4s. per bottle, an offer of 3s. 11d. being refused. Fisher's *Patchouly* is quoted at 1s. 5d. per oz. One 11-lb. tin of good Spanish *Geranium* oil was bought in at 3s. per oz. nominally to-day; but six cases from Bombay sold at 3³/₄d. per oz. One lot of somewhat inferior *Ylang-Ylang* sold a bargain at 2s. 8d. per oz.; for another parcel 8s. per oz. is the limit. American *Peppermint* (H.G.H.) is selling at 11s. 1¹/₂d. per lb. on the spot. Japanese oil keeps advancing, 4s. 9d. to 5s. having been paid on the spot for fair native brands; and for arrival 4s. 6d. has been paid, and 3d. more is now asked. Cocking's price has been raised to 6s. per lb. For *Menthol* this brand is now quoted at 9s. to 10s., and in native menthol sales are reported at 8s. on the spot, though 6d. more is now asked. For shipment 7s. 6d. was paid some days ago, and we also hear of business at 7s. 9d. per lb., but a parcel has been sold in the course of the week at below market rate, viz. 6s. 7d. per lb. There is now no more at anything like that figure.

OPIUM.—The market is very firm and slowly rising. In *Persian* we do not hear of any sales. *Druggists' opium* is now quoted at 13s., and for some *Manufacturing* stuff 12s. is being paid. We also hear of a parcel having sold at 12s. 6d.

ORANGE PEEL.—Our market is still very much over-supplied, and *Gelatine* cut is almost unsaleable. A parcel of 5 bags fine new *Seville* ringlets is held at 1s. per lb.; old crop, much darker in colour, at 6d. per lb.

ORRIS ROOT.—Advices from Italy confirm our previous reports with regard to the extreme smallness of the crop, and, under the influence of this fact and pressing orders, prices have advanced still further. Best selected *Florentine* root is now quoted at 60s. "f.o.b." Leghorn; ordinary quality at 50s.; and *Verona* root at from 26s. to 33s. per cwt.

PHOSPHORUS.—*Amorphous* scarce and dearer at 3s. per lb.; *Wedges*, 1s. 10d.; *Sticks*, 1s. 11d.

POTASH SALTS.—Montreal *Potashes* dull at 20s. 9d. per cwt. in Liverpool. *Pearlashes* from 30s. 6d. to 30s. 9d. *Bichromate* remains at 4d. per lb. *Chlorate* ¹/₄d. lower for early delivery. Sales have been made at 4¹/₄d. per lb. *Cyanide*, 30 per-cent., 9d. *Yellow prussiate* is still rising, and various quotations are made to-day, from 8¹/₂d. up to 9³/₄d. per lb. English refined *Saltpetre* better, from 21s. 6d. to 22s. 6d. *Permanganate*, no change.

PUMICE-STONE.—Of 7 packages offered to-day the greater part was sold at 14s. per cwt. for very bold, and 10s. to 11s. for medium size.

QUASSIA WOOD is a dead article just at present; 5l. is the nominal price. At to-day's auctions 10 tons were sold at 95s., having run up to that figure from 60s. per ton. We hear that privately some business has been done below that quotation.

QUICKSILVER.—A very quiet week, importers remaining at 9l. 15s.; second-hands, between 9l. 8s. 6d. and 9l. 11s., closing rather firmly to-day at 9l. 9s.

QUININE has sold at a decline, about 80,000 ounces being reported disposed of at 1s. 1¹/₂d. to 1s. 1³/₄d. per oz. for December-January delivery. On the spot sales were reported yesterday at 1s. 1¹/₄d. for cash, though we cannot say that that quotation has been confirmed. To-day there is a better feeling, and it is doubtful whether there are still sellers at 1s. 1³/₄d. per oz. The manufacturing bark sold at last Tuesday's London auctions contained an equivalent of about 100,000 oz. quinine sulphate.

RHUBARB sold well to-day, the bulk of the quantity offered being of very inferior quality and wormy. *Shensi*, small to medium, fair pale coat, half grey and half pinky fracture, 2s. 2d. to 2s. 3d. per lb.; small round, three-quarter grey fracture, 1s. 7d.; ditto flat, yellow coat, fine fracture, slightly wormy, 1s. 4d. per lb.; mixed sizes, round, wormy, 1s. 2d. to 1s. 3d.; and a large quantity of extremely wormy root, with very little colour, at from 4d. to 7d. per lb.; *Canton*, good, flat, medium to bold, fair coat, pale grey fracture,

1s. 2d. per lb.; *high dried*, good, small, bright coat and fracture, 10¹/₂d. per lb.; ditto ordinary, wormy, 7³/₄d. per lb.

SAFFRON continues to advance in Spain, and the price for the finest *Valencia* is now from 48s. to 50s. per lb.

SENNA.—Of 473 packages *Tinnerelly* offered to-day, nearly the whole sold at some decline, doubtless owing to the fact that between 600 and 800 packages have arrived this week. The assortment was rather inferior, and the prices paid were:—For good green partly specky leaf, 7¹/₂d. to 8d.; fair green colour, mixed sizes, 5d. to 6¹/₂d.; small to medium, green and yellow mixed, 3d. to 3³/₄d.; ordinary small, of which the bulk consisted, 2d. to 2³/₄d.; and low, at 1¹/₂d. to 1³/₄d. per lb.

SHELLAC.—The latter part of the week has been rather quiet, and, as compared with last Thursday, prices must be quoted fully 2s. per cwt. lower for *Orange*, 1s. for *Garnet*, and 1s. to 2s. for button lac. Fine orange ASSL has sold at 110s.; good VSO, 89s. to 90s.; ordinary livery to good bright seconds, 72s. to 74s.; AC *Garnet*, 66s.; fair to good first *Button*, 94s. to 96s. per cwt. For arrival TN is 1s. to 2s. lower, and garnet about 1s. dearer, the following being to-day's quotations:—

			Dec.	Jan.	Feb.	Mar.	Apr.
Orange	TN, sellers	..	77/6	78/	78/6	78/	78/
"	buyers	..	76/	77/	77/6	77/6	77/
Garnet	AC, sellers	..	68/6	69/	69/	—	—
"	buyers	..	66/6	67/	68/	—	—

SODA SALTS.—*Ash*, rather scarce and firm; Tyne, 1¹/₂d.; London, landed, 1³/₄d.; *Bichromate*, 3d. per lb.; *Bicarbonate*, steady, at 5s. 9d. per cwt.; *Caustic*, somewhat firmer for early delivery; *Crystals*, landed, 54s. to 55s. per cwt.; Tyne, 42s. 6d. to 43s. 6d.; *Tartrate*, powder or crystals, 100s. per cwt.

STROPHANTHUS.—We hear that the whole of the parcels of *Glabrous strophanthus* to which we recently called attention has since been sold. Most of it seems to have gone to the Continent.

SULPHONAL.—The competition among manufacturers continues, and we now quote at 16s. per lb. for bulk, or 1s. 1d. per oz. for 1-oz. bottles.

TEA.—China Tea: the Congou market is firm for all kinds but finest, with reduced supplies in public auction. In Wednesday's sale good Monings from 5d. to 6d., which have been so notably cheap, sold fully ¹/₄d. per lb. dearer with good competition; but with slack trade, at this time of the year, it is not likely that there will be any substantial further advance, cheap as these grades still are. Fine Keemuns sold at 10¹/₂d.—teas that have been worth 1s. 3d. to 1s. 4d.—and there is really nothing in Kaisow that fetches over 1s. per lb., a fine Chingwo, part sold at 1s. 5d. and at 1s. 2¹/₂d., going at 11d. in Thursday's sale. Newmakes are rather firmer this week for good fourth-crop teas from 7¹/₂d. to 8¹/₂d., but there is nothing offering that is really fine. Capers are easy, commonest selling down to 5¹/₄d. and teas from 7d. to 8d. showing first-rate value. Greens are steady. Indian teas remain firm, commonest leaf tea fetching 6d. and common Pekoes 7¹/₂d. Pekoes from 9d. to 9³/₄d. are, however, very reasonable, and the better grades from 10¹/₂d. to 1s. 1d. are as cheap as ever. Fine broken Pekoes are easy, without very much demand. Ceylons are steady, fair leaf tea selling at 9¹/₂d. to 10d., and useful Pekoes at 10¹/₂d. to 11d. Grades over 1s. are weak, and both for broken and leaf teas show a further downward tendency.

TONQUIN BEANS.—Fine *Angostura* are quoted dearer, at 5s. 9d. per lb. "c.i.f." terms. At the sales to-day 4 packages of 300 each, fair *Pará* in the pods, sold cheaply at 4d.

VANILLA.—The small assortment offered to-day sold, with very good competition, at an advance of from 2s. to 3s. per lb., the lower grades being comparatively the dearer. Fine crystallised, 8¹/₂ inches, 23s.; good, 6 to 8 inches, 21s. to 22s.; and black to fair, 3¹/₂ to 7¹/₂ inches, from 13s. 6d. to 17s. 6d. per lb.

WAX (BEES').—*Jamaica*, in small supply at to-day's sales, sells steadily with good competition. Brown and red mixed, 5l. 10s. to 5l. 12s. 6d.; fair red to good even yellow, 5l. 15s. to 6l. 2s. 6d. per cwt. For a parcel offered as bees'-wax from

Bombay, but which consisted of some very low-class grease, an offer of 2s. 6d. was made and refused.

WAX (JAPAN).—The recent attempt to create a higher market for this article does not seem to have been very successful. At to-day's auctions several lots were offered, and, although the price is said to be much dearer in Japan, only one lot could be sold at 45s. per cwt. for good hard white squares; while a parcel of greasy, soft, and mixed damaged wax sold at 30s. per cwt. without reserve.

THE AMERICAN MARKETS.

(Cablegram from our Correspondent.)

NEW YORK, Thursday morning.

CAMPHOR.—In sympathy with the news from Europe and Japan, our market for refined has risen again, the quotation now being equal to 1s. 9d. per lb. "c.i.f." terms. No one here seems to know of any supplies coming forward, and consequently the general expectation is that we shall see much higher prices yet.

OIL (PEPPERMINT).—The market remains very firm at the quotation of 10s. 6d. per lb. "c.i.f." terms for H. G. Hotchkiss's oil, but we do not hear that any business is doing in the article.

OIL (SASSAFRAS).—The price rules lower, and good-quality oil may now be bought at 1s. 9½d. per lb. "c.i.f." terms.

QUININE.—The market is very depressed, and shows every indication of going to pieces. There has been no demand lately for consumption, and speculation is entirely dead for the time being. A number of small holders are anxious to get out of the article, and keep pressing their stocks for sale, thus increasing the depression.

THE GERMAN MARKETS.

HAMBURG, December 10.

BUSINESS is practically suspended owing to the approach of the holidays, and there are not many changes to report. Antimony and refined camphor rising, copper sulphate unchanged, quinine drooping. As regards drugs, copaiba and Peruvian balsams are steady in price, and we have to note higher rates for star-anise and Japan peppermint oil; while fresh arrivals of menthol, which are much wanted, have not come to hand yet.

The prices in this column are given in marks (11¾d.) per 100 kilos., or per kilo. (1 kilo. = 2 lbs. 3½ oz., 50¾ kilos. = 1 cwt.).

ARAROA is dearer, 4½m. being now required.

CAMPHOR (REFINED).—The upward tendency has continued, and 3.50m. has been paid, but the position of the article is getting somewhat dangerous. It cannot be denied that stocks of crude camphor in Europe and America are exceedingly small—smaller than they have ever been before—and that the export from Japan has been considerably less than in 1888, while the consumption of refined camphor has increased. The principal question is whether any stocks of crude camphor are kept back in Japan, or whether the production of this article has really decreased. In the latter case, however, the high prices which are now being paid will induce the Japanese to pay more attention to the production of crude camphor. Refined camphor is said to be employed in manufacturing smokeless gunpowder, but it is impossible to learn anything positive about the quantities used for this purpose. From what is said before, it must be admitted that it is very difficult to say which course speculation in refined camphor will take. The transactions up till now have been merely speculative ones. It is said, too, that the German refiners have sold ten times as much camphor as can possibly be delivered. This will, no doubt, prove an error. The whole transactions of refined camphor in our

market may amount to ten times the quantity that can be produced; but then it must be remembered that during a rise in price from 230 to 350 marks the identical lots have changed hands at least ten times. Most of the transactions have been—and will be—squared by paying the differences, and refiners will, no doubt, have sufficient camphor to fulfil all their contracts.

JALAP very firmly held at 152m. to 155m., the entire stock being in the hands of one firm.

MENTHOL.—Holders are asking very high prices—16m. to 16½m.

OILS (ESSENTIAL).—*Star-anise* is again dearer; 13.60m. was paid. *Peppermint*: Japan has had a sharp advance. At 9½m. the market was cleared.

SAFFRON tending higher—100m. to 110m. Prices are very steady.

WAX (JAPAN).—90m. is quoted for prime whitish squares.

THE AMSTERDAM CINCHONA AUCTIONS.

(Telegram from our Correspondent.)

AMSTERDAM, Thursday.

AT to-day's cinchona auctions, 2,123 packages bark were sold at fairly steady prices, the average unit being 9½ cents. (= 1½d. per lb.). The prices paid range as follows: Manufacturers' bark in chips and broken quill, from 11 to 100 cents. (= 2d. to 1s. 6d. per lb.); ditto root, 13 to 18 cents (= 2¼d. to 3¼d. per lb.). Druggists' bark in quills, more or less broken, and in chips, 9 to 72 cents (= 1½d. to 1s. 1d. per lb.); ditto root, 27 to 59 cents (= 4¾d. to 10¾d. per lb.). The principal buyers were Messrs. Schepp & Zoon, Rotterdam; Matthes & Bornceester, Amsterdam, the Frankfort-on-Main and Stuttgart factories, and the Auerbach works.

OIL OF EARTH-ALMOND.—The tubers of *Cyperus esculentus*, the so-called earth-almond, contain 27.1 per cent. of a fatty oil, which is yellowish and has an odour like burnt sugar. The oil consists principally of oleic-acid glyceride, but also contains a small proportion of myristic-acid glyceride.

RELATIVE VALUE OF VARIETIES OF LOGWOOD.—L. Brühc, who has examined a large number of specimens of the logwood of commerce, maintains that the statement occurring in many text-books, even such as have been published by prominent authorities, that the name of the wood is at once the criterion of its value, the brands, San Domingo, Yucatan, Monte Christo, and Laguna, being generally considered the best, and the others as of inferior value, is incorrect. The author gives his grounds for this assertion in the following analyses of samples:—

Name and Mark of Woods	Water	Ash	Combustible matter	Alcoholic extract	Ethereal extract	Residue	Yield of extract
Yucatan logwood	Per c. 13.00	Per c. 1.09	Per c. 65.71	Per c. 37.46	Per c. 60.12	Per c. 2.42	Per c. 20.20
Laguna "	12.38	0.96	65.66	47.95	51.37	0.68	21.00
Domingo "	13.19	1.88	70.73	53.7	44.95	1.58	14.02
Monte Christo logwood, 1884	13.20	2.94	65.11	60.32	32.00	7.78	18.75
Monte Christo logwood, 1887	14.70	1.03	70.27	54.10	34.72	11.18	14.00
Fort Liberté logwood, 1886-87	13.10	0.82	65.75	54.11	41.89	4.00	20.33
Fort Liberté logwood, 1887	10.12	0.88	73.00	47.92	50.00	2.18	16.00
Fort Liberté logwood, 1885-86	12.11	2.03	68.41	45.17	59.72	5.21	17.45
Fort Liberté logwood, J. B., 1857	11.84	1.03	69.13	34.81	59.24	5.95	18.00
Yucatan logwood, E. J.	14.51	1.20	66.95	38.51	58.34	3.15	17.34
Domingo logwood, D.	13.71	2.14	64.85	50.32	43.81	5.81	19.30
Jamaica wood	14.10	1.14	66.06	50.50	43.20	6.30	18.70
" "	12.10	1.30	68.60	50.71	43.05	6.24	18.00
" " roots	15.30	2.30	71.70	30.12	52.99	16.89	10.70



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulae consult the last volume, if you have it.

Letters, queries, &c. will be attended to in the order received.

Pharmacopœia Corrections.

SIR,—With reference to the article entitled "Pharmacopœia Corrections" in your issue of December 7, I have to state that, through a misunderstanding on the part of a clerk at a time of very great pressure of Council business, the mistake was made of informing one or two applicants that a list of corrections of the Pharmacopœia will be prepared in the course of next year.

The corrections found needful for the edition of the Pharmacopœia published in 1885 were incorporated in subsequent reprints, and they will be found in the reprint of 1888.

The original list of corrections may, however, be obtained separately, for the use of those who possess copies of previous issues of the Pharmacopœia, on application to the publishers (Messrs. Spottiswoode & Co., New Street Square, London, E.C.).

Yours faithfully,

W. J. C. MILLER,

Registrar.

General Medical Council Office,
229 Oxford Street, W., December 10.

Natural v. Artificial Salicylic Acid.

SIR,—In reply to your notice of our paper in your journal on the comparative action of the natural and artificial salicylic acids and their salts of sodium, we would state that since the publication of our article we have tried the artificial acid manufactured and guaranteed to be pure by the well-known German chemist Schuchardt, and found that its action in equivalent doses is just as lethal.

We maintain that the artificially prepared salicylic acid in common use contains an impurity which contra-indicates its medicinal use internally, either as the acid or its salts of sodium; and as the matter at present stands, and until the impurity can be removed, only the natural acid or its salt should be used in dispensing.

Yours, &c.,

Glasgow University, December 9. M. CHARTERIS.

The Sale of Poisons by Unqualified Persons.

Mr. T. A. O. Heale, 44 Seven Sisters Road, Holloway, thinks that if chemists may not leave their pharmacies in charge of unqualified assistants it would be only fair that the Minor qualification should exempt them from jury duties.

SIR,—I think the time has arrived (while thanking you and the gentlemen who have responded to your appeal) to point out that so far the response has been inadequate, and that, unless the minimum of 100% be reached in the course of next week, the appeal will be practically abandoned, and I must withdraw from a position which the indifference of those interested has rendered a false one.

This indifference seems the result of apathy on the one hand and a selfish shortsightedness on the other; while many chemists display a suppressed eagerness for the fray, and, at the same time, a backwardness in providing the sinews of war, which is inconsistent therewith.

That this prosecution is opposed to the spirit and purpose

of the Act of 1868 is the gist of many private communications from old and influential members of our body, and, whatever the result, this correspondence shows the importance and necessity of maintaining intact the principle of the responsibility of the employer.

50 Bishopsgate Within, I am, sir, yours obediently,
London, Dec. 12. M. E. FOSTER.

[We acknowledged on November 30 sums received, or promised, amounting to 47l. 5s. We have since been notified of the following. The contributions paid are held by us until it is decided whether the appeal will be prosecuted:—

	£	s.	d.		£	s.	d.
A. G. Chamberlain	1	1	0	P. H. P.	0	10	6
A. E. Fuller, 193 High Street, Deal	0	2	6	Mr. Wyborn, Kemp Town, Brighton	1	1	0
Walter Shead, Heckmond-wike	0	5	0				

The following have been collected in Glasgow:—

	£	s.	d.		£	s.	d.
John MacMillan	0	10	6	Robert Brodie	0	10	0
Glasgow Apothecaries Co. 1	1	0	0	A. Morrison (assistant) ..	0	2	6
Wm. Wallace	5	0	0	A Friend	0	10	6
Dr. Moffatt	0	10	6	"	0	10	6

Mr. Gilbert Thonger, pharmaceutical chemist, Harborne, Staffordshire, writes at considerable length on this topic, but we cannot spare space for the repetition of arguments *ad infinitum*. Mr. Thonger appears to be much astonished that all pharmacists are not of one mind in this matter—that is, of his mind. If the judges should support the view of the Wandsworth coroner, he is confident that will be "absolutely fatal to the interests of the pharmacist, and, as a natural consequence, to the medicine-taking portion of the public also." He is "more than astonished that the Pharmaceutical Council should have acted so unwisely and so unfraternally as to have followed the coroner's lead." Mr. Thonger has never seen or heard an opinion expressed in support of this view that he considers of any weight. He supposes the case of money left to the "builders" of a church, and asks, "Who were the builders?" He would say, "Messrs. Brick, Plaster & Co., the contractors"; but his opponents would reply, "No! the individual operatives who really did the work." He submits that "the logic of this suggestion traverses precisely the same lines as that of an acceptance of the new reading of this question; it may, and most likely will, be laughed at, but it cannot be refuted." After further expressions of his opinion, Mr. Thonger continues: "I would ask your readers not to suppose that I am writing as the champion of the 'unqualified.' I have already said that to put an unqualified man in charge of a branch is not only absolutely opposed to the spirit and principle of the Act, but ought to be made the occasion of immediate prosecution. No; the banner which the pharmacist ought to raise is that of 'common sense and justice,' and I will not believe, unless I am obliged, that the ultimate issue of this discussion will fail to give it a large following. However, there is little danger that the judges will forget the 'legal maxim' that 'He who does a thing by the agency of another does it himself.' Personally, I can have no interest in the matter, for if I am behind the counter on March 4 next, I shall have been there for fifty years; but it will be a great gratification to me if those of your readers who approve the position I am taking will kindly signify the same by post-card."

The Flowing Tide.

SIR,—Almost daily our newspapers tell us of impending strikes, and of the termination (usually successful) of existing ones. Surely this must have set many of us chemists' assistants thinking over the number of hours we labour each week, and comparing them with those of other classes; and the suggestion may have occurred that the time is ripe for some readjustment thereof.

I am writing as a qualified assistant, who hopes one day to be a master, and would, therefore, set before me a high standard of justice and fairness, and in any movement which I might join never swerve therefrom. Neither would I pro-

pose to touch the question of payment, because I believe this inevitably leads to a "leveling downward," whereby the superior man is brought to the level of the inferior one. All I would wish to do is to form a union of chemists' assistants, having for its object to fix the hours of labour (ordinary and "overtime," or "night-duty") at a just and fair amount—just to the employer, fair to the employé; and wherever the exigencies of the case demand that these hours must be exceeded, the excess to be paid for as is done in every other trade.

You, Sir, have championed our cause on former occasions; will you not again assist us? Draw up for us, say, a "time-sheet," and submit it as a suggestion through your columns. Surely if a fair and acceptable one were formulated we have enough enterprise in us to organise and in due time demand its enforcement.

Yours truly,
E. (194/32.)

On One Level.

SIR,—In reading your report of the Council meeting I notice Mr. Abraham deprecating a levelling-down process, by which pharmaceutical chemists would lose exemption from jury service. I will state a case. I have a neighbour, a Major man, who has this much-coveted exemption. My returns will probably double his, and I dispense five—perhaps ten—prescriptions to his one. I have had nearly forty years' experience, and have tried to keep myself abreast of the times. I would like to know by what process of reasoning it can be argued that I have not as much right to exemption from jury service as my neighbour. Much noise is being made about the sale of poisons by unqualified—that is, I suppose, unexamined—men. Would someone kindly say why the public require less protection from danger by the absence of a Minor or an unexamined, but registered, chemist while serving on a jury, than from the absence of a Major man? The thing is absurd on the face of it. Tides I care nothing about; I am a plain chemist and druggist, and am content with it.

Mr. Robbins does not see how the whole trade is to be brought into the Society. Neither do I, so long as there are so many anomalies such as I have named above. If they will get a Bill which will place all examined and registered chemists on one footing, and give them adequate protection, which will make it worth their while to incur an expensive education, they will get the men and the guineas too.

Personally I am in favour of making the proprietor (who should be qualified) legally responsible for the conduct of his business, and, I would say, let all chemists in business be exempt from jury service. The safety of the public demands it.

December 9. AN OLD CHEMIST. (194/53.)

Medical English.

SIR,—I have read with considerable interest your article on "Pharmaceutical and Trade English." It has often been noted that our American cousins have a great fancy for new words (especially long ones) coined from the Greek and Latin, but it has, perhaps, not been so much observed that the medical profession has a similar leaning. A favourite word at the present time seems to be *armamentarium*, which in Latin means an arsenal, but is not to be found in standard English dictionaries. I recently read in a medical journal the word "somniaficant," several times repeated; which word also is not to be found in Webster or Ogilvie. Does anyone know in what respect a somnificient differs from a soporific and a hypnotic?

Musselburgh, December 7. Yours very truly,
D. B. DOTT.

["Armamentary" is given by Dr. Murray as an obsolete English word; in the Latin form, as quoted by Mr. Dott, it appears to have been used in a surgical sense principally.]

The New Pharmacy Bill.

Frank Tebbutt.—Your letter assumes a false premiss. The law does not require anybody to be examined before he can sell drugs; it is only in regard to the sale of certain scheduled poisons that a certificate of competency is required.

Tincture of Rhubarb.

SIR,—As the prosecution for defective tr. rhei, reported by you in your issue of last week, is of so great importance, each item of additional evidence may be worth something. I beg, therefore, to send you the result of an estimation I have made from our own stock. It is from a batch of 1 gallon prepared according to the Pharmacopœia, and has been made ten months. Sp. gr. taken at 60° F., .9403. Solid residue dried on the water-bath until perfectly constant, 4.06 per cent. by weight; 10 c.c. vol. (estimated, of course, as 9.403 grms. weight) were operated on. These figures approximate very nearly to those given in the Stockton case.

Pertaining to this question, why does Fletcher in his columns of solid residues give us the weights at two temperatures: 45° to 50° C. and 120° C., omitting altogether 100° C.?

Yours truly,
A. EBERLIN.

2 Chapel Bar, Nottingham, December 10.

Mr. Leigh's Scheme.

SIR,—As a country chemist I am altogether favourable to the scheme put forth by Mr. Leigh as it appeared in your last issue.

Numbers of youths have no opportunities of attending classes and lectures, and as many more, perhaps, have no one to look to for practical guidance (as, indeed, was my own case), their masters are unwilling or incapable, or even both. Mr. Leigh's system has this about it, that it directs a plan of study, instead of leaving the youth to his own devices at a critical time of life, and enables him to gauge his progress from time to time. It prevents him attempting too much, and thereby, perhaps, floundering and becoming disheartened, and stimulates him to put forth further effort as he finds himself slowly and steadily getting hold of his subjects. In this way the youth will come to love knowledge for its own sake, rather than dread it, or look upon examinations as a great but necessary bugbear.

POT. IODID. (196/69.)

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulæ and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

190/12. G. S.—Bay Rum.—August 31, page 316.

Cream Separators.—For these Messrs. Tyers & Thirlby, Leicester, recommend Vipan & Headly of that town. Mr. W. Banbury, Dursley, recommends R. A. Lister & Co., Dursley.

189/32. Student.—Flavouring for Cod-liver Oil Emulsion.—A mixture for 36 oz. consists of oil of bitter almonds, 15 minims; oil of cinnamon, 25 minims; chloroform, 10 minims, with a few ounces of orange-flower water.

189/49. Amerique.—Books for Minor Students.—See our Educational number, September 21.

189/40. Zingiberis.—What is your name? and yours, J. H. T. (Newcastle) 189/23?

188/59. X.—The Nitrate of Soda so largely imported from South America is nearly all used for fertilising purposes. A little is used in vitriol works, and is sold as a cheap saltpetre.

190/44. *August*.—The series of **Parlour Chemical Experiments** was printed in our issues for December, 1886.

190/45. *Patior*.—We answered the same question on November 16.

190/50. *T. A.*—We do not think that laundresses use a mixture of glycerine and turpentine in **Starching**. We fail to see how glycerine could do any good; turpentine might; but what is most used is borax, either alone or mixed with starch. Also any solid waxy substance, such as white wax, spermaceti, or paraffin.

190/57. *Dens*.—You will find formulæ for calorific fluid in the article on Dentistry in the **DIARY**.

190/73. *Apprentice*.—**Blood Root** is the root of *Sanguinaria Canadensis*, and the tincture (15 in 100) is made with a mixture of rectified spirit 2 parts, and water 1 part.

190/34. *Delta*.—**Ointment for Eczema**.—As far as we can make out the ointment is a mixture of beta-naphthol and vaseline. But why not ask the hospital dispenser?

190/39. *Wales*.—The end bottle of Mr. Boyle's aspirator arrangement must contain a piece of glass tubing for the admission of air. From what you say, we presume that you have omitted this part of the arrangement.

190/2. *X. F. Z.*—We do not have it.

190/3. *H. & M.*—It is very difficult, frequently impossible, to **Remove Oil Stains from Unglazed Tiles**. Sprinkle powdered fuller's earth thickly upon the spot, and place a hot flat-iron on the top; in a few minutes remove, and use fresh earth. The earth absorbs the oil, and if you heat the earth on the fire it can be used over again.

192/60. *B.*—**Butter-scotch**.—Perhaps some reader can advise this correspondent in this difficulty. He makes good butter-scotch from butter, 1 lb.; sugar, 6 lbs.; water, a sufficiency; cream of tartar, 1 drachm. The problem is how to prevent it becoming soft and sticky on exposure. These faults are, in our experience, the most notable characteristics of the sweetmeat.

193/7. *Tulgarth Sub.*—The high polish on starched linen is obtained by adding borax and wax to the starch, and polishing with a burnishing iron.

Lund's Oil.—In reply to 179/68, Messrs. Grimbé & Kent, Boston, inform us that Lund's oil is made as follows:—

	Parts				
Absolute phenol	1
Ol. ricini	4
„ olivæ	11

As the olive oil crystallises in winter, an improvement is:—

	Parts				
Absolute phenol	1
Ol. ricini	7
„ amygd.	8

Vide Martindale's "Extra Pharmacopœia," p. 9.

Reply to 188/22.—**Hydrofluoric Acid** is used for etching upon glass, either in the form of gas or in aqueous solution. With the former the etching is opaque, but with the latter clear and transparent. The liquid is usually used of the strength 1 part of acid to 6 parts of water. The gas is made by treating finely-powdered fluorspar with strong

sulphuric acid, in both cases the articles to be etched being protected with a coating of wax. As the mixture of fluorspar and sulphuric acid is practically a thick white paste, might not this be the "white hydrofluoric acid" of querist?—E. J. W. (193/40.)

The Half-price Closed Letter Company (Limited).—Will chemists who have taken this agency favour us with their experience?

195/54. *W. B.*—We thank you for your communications.

183/72. *Suffolk*.—See our issue of November 9, page 676.

The Advance in Patents.—*The Patent Man* (195/26) suggests the danger of retailers buying large stocks of patent medicines likely to be advanced in price, and these deteriorating by keeping. This is too shadowy a risk to occupy much space.

190/59. *Tulip*.—**Lassar's Paste**:—

Salicylic acid .. ..	..	..	..	..	35 gr.
Oxide of zinc .. ..	..	..	..	..	1 oz.
Starch .. ..	..	..	..	..	1½ "
Vaseline .. ..	..	..	..	..	2½ "

Melt the vaseline, and mix with the powders in the proper manner.

187/2. *Alba*.—If **Seed Oils** are adulterated with fish or mineral oil in any appreciable quantity their presence is made evident on heating. Mineral oil being unsaponifiable can readily be detected by saponifying a little of the oil with soda, and diluting with a large volume of water. The mineral oil comes to the surface after a time.

176/3. *W. F. G.*—Your best plan would be to apply to Dr. Kidd. See his address in the **DIARY**.

187/73. *Pini*.—**To Perfume Almanacks**.—Sprinkle the perfume on sheets of blotting-paper, which place in a closed box along with the almanacks spread on the sheets of blotting-paper in double layers.

185/40. *Casara*.—We thank you for yours, but we are not in the position for giving an opinion, supposing we were inclined to do so. The analyses which we published were quite different from your formula. For instance, natural camphor oil was said to be one of the ingredients. You say sassafras. Well, camphor oil has a sassafras odour.

186/30. *H. W. Langbeek*.—See our issue of October 26, page 586.

194/51. *Racemosa*.—We shall give a short article on the subject in an early issue.

194/31. *P. c. H.*—The only one for which we have a working formula is **Acid Glycerine of Pepsin**, which is:—

Pure pepsin .. ..	..	..	..	..	1 oz.
Hydrochloric acid .. ..	..	..	..	..	2 drachms
Glycerine .. ..	..	..	..	..	8 oz.
Water .. ..	..	..	..	..	12 "

Mix the acid with 2 oz. of water, and rub up with the pepsin; add the rest of the water, digest for 24 hours, then add the glycerine, and after two days decant or filter.

194/52. *Oxonian*.—**How to Calculate the Capacity of a Cylinder**.—Multiply half the diameter by half the circumference and the result by the depth. The answer is the cubic measurement, from which you can calculate the capacity, the cubic foot being equal to 6¼ gallons.

194/32. *J. E. M.*—Shellac Paste, used by stonemasons, is white shellac dissolved in enough methylated spirit to make a varnish which will just pour. Equal parts by weight are generally used.

195/22. *J. M.*—Fur is generally removed from boilers by chipping it off. Soda crystals help to loosen it, and hydrochloric acid dissolves it, but neither method is so cheap in the long run as getting men to do the job.

195/35. *Tempus.*—You can only make a Vacuum in a Test-tube by using an air-pump. We must refer you to a book on physics for the information.

195/29. *X. Y. Z.* wants to know all about how oysters are preserved in tins. We do not happen to know, but have no objections to publish the information if anyone cares to supply it.

195/12. *J. F. B.*—It seems to have been Neatsfoot Oil which your customer was supplied with in Germany. This oil is produced on the Continent in quantities and qualities which are astonishing to English pharmacists. In the French Courts of the Paris Exhibition we noticed a number of collections, containing specimens of all kinds, showing the stages of manufacture. The best oil is perfectly water-white, and possesses a sweet and agreeable odour. You can doubtless obtain this oil through any wholesale house which has a French or German connection.

195/13. *Chemicus.*—Simple Chemical Experiments.—No wholesale house has taken advantage of our first prize-competition to put up the chemicals in saleable form, but one or two retailers have for their own trade. Can anyone supply others, such as our correspondent?

182/16. *J. C.*—Ink for Rubber Stamps.—Aniline violet, 1 drachm; methylated spirit, 2 drachms; water, 4 drachms; glycerine, 2 drachms; treacle, 2 drachms. Powder the aniline and dissolve in the water and spirit; then add the other ingredients. Any other colour may be used. See also our issue of October 26, p. 600.

195/10. *Peppermint.*—Five hundred parts of water will not dissolve more than one part of oil of peppermint, and syrup dissolves even less. We judge, from what you say, that you are using too much oil for the cordial, but before we can clearly advise we must have the complete formula before us. Please send that.

195/73. *A. V.*—You can bleach the hair with peroxide of hydrogen; the colour will be golden. There is no way of making it absolutely white.

Information Wanted.

[Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.]

183/30. Address of agent of R. Brandt's Swiss pills.

183/30. Address of British Patent Letters Company.

191/20. Makers of permanganate of soda, crude.

194/2. Address of Preservatas Company.

189/2. Formula for ink as used for Remington typewriter.

190/67. Formula for "Balmworth ointment."

141/43. What is mist. merc. cyanid. co.?

195/18. Pure silicic acid; who are the makers of?

LEGAL QUERIES.

189/11. *Hyd. Perch.*—It is illegal for photographic stores (unless conducted by a registered chemist) to sell corrosive sublimate by retail. If they supplied it to photographers, however, it might be regarded as wholesale trading, and that is permissible.

184/54. *Long Grass.*—We do not see any ground on which you can object to the action of the surveyor, presuming he is acting on the instructions of the proper local authority. The pit, you say, is parish property; surely the parish can do with it as seems best to their wisdom.

183/36. The Apothecaries' assistant's certificate is of no value in relation to the Pharmacy Act.

194/1. *C. Watson.*—The British diploma would not be recognised in France as of any legal validity; nor would it be accepted in lieu of any part of the curriculum there.

183/33. *Pavement.*—Most rates are payable by the occupier, unless stipulation is expressly made in the lease. This applies to the ordinary paving and lighting rates. But when local boards make certain private improvements and levy them on the occupier, the latter has a right to charge his landlord three-fourths of the amount. These rating questions, however, vary in different localities, and the local act, or, better, a local solicitor, should be consulted. You cannot be wrong, however, if you insist on having it stated in your lease that you are to pay, or are not to pay, such and such rates.

194/15. *Forward.*—Either of the labels would render the medicine liable to stamp duty.

174/14. *T. B.*—We do not appreciate the force of your remarks. There would be a certain amount of absurdity in labelling cough-pills poison; but it would be reckless to wickedness to sell such an article as Battle's vermin-killer without taking every precaution, apart from the legal aspect of the matter.

191/22. *Areca Nux.*—Methylated spirit may be sold by anyone who holds a methylated spirit licence. We do not think it would be an infringement of the Sale of Food and Drugs Act to sell as "Paregoric substitute" a preparation containing no opium, but such a case has not been tried, and we cannot foretell possible results. Preparations of chloroform are not included in the Poisons schedule. It would not be an infringement of the Pharmacy Act to sell as chlorodyne a mixture composed as you state, but it might be regarded as an offence under the Sale of Food and Drugs Act.

190/30. *J. N. L.*—The paragraph on your label commencing, "it removes rheumatism," evidently renders the preparation liable to medicine-stamp duty.

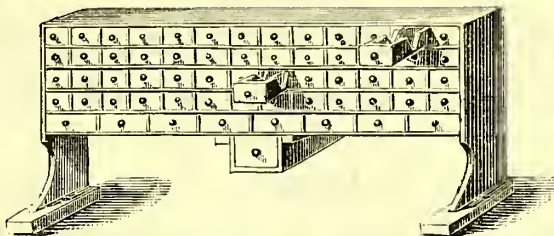
194/37. *R. L.*—The Act prohibiting the sale of methylated spirits between the hours named only came into operation recently, and it certainly will not be safe to infringe it. The Register of Chemists and Druggists is supplied to every county court in the country. Perhaps you could refer to it there.

195/31. *J. B.*—If you should be summoned, communicate at once with the firm who supplied the citrate of iron and quinine.

193/70. *Embryo.*—The agreements will need a sixpenny stamp to make them valid.

THE NEW DRUGGIST'S LABEL CABINET

(PATENTED).



H. POTHS & CO., 4 CREECHURCH LANE, LONDON, E.C.
LEADENHALL ST.,

Full Particulars on Application.

[2]

PURE OXIDE OF ZINC (HARRIS'S)

SPECIALLY PREPARED FOR PHARMACEUTICAL PURPOSES.

PHILIP HARRIS & CO., LIM., Manufacturing Wholesale and Export Chemists, **BIRMINGHAM.**

CRYSTAL PALACE JOHN BONDS GOLD MEDAL MARKING INK

Given away, on and after September 4, with every 6d. and 1s. Bottle, a Voucher entitling Purchaser to their name in full, or Monogram Rubber Stamp, for Marking Linen or Stamping Paper.

We respectfully recommend a small supply being stocked, that customers may not be disappointed and many turned away.

NOW BEING LARGELY ADVERTISED.

Works:—75 SOUTHGATE ROAD, LONDON, N.

We would draw the attention of Chemists to the fact that we are largely Advertising.

VICHY LAXATIVE POWDER

Of Dr. Léonce SOULIGOUX,

FOR

CONSTIPATION, APOPLECTIC TENDENCIES, ENLARGEMENT OF THE LIVER,
CONGESTION OF THE BRAIN, HEMORRHOIDS, MIGRAINE, ETC.

Sold in Bottles, **2s. 6d.** Retail; **24s.** per dozen.

WHOLESALE DEPOT FOR THE UNITED KINGDOM—

BURGOYNE, BURBIDGES, CYRIAX & FARRIES,
12 and 16 Coleman Street, LONDON, E.C.

PARIS DEPOT—CHASSAING & CO., 6 AVENUE VICTORIA.

WILLIAM FOX & SONS,

WHOLESALE DRUGGISTS, &c.,

109 & 111 Bethnal Green Road, LONDON, E.

Cabinet Varnishes, Polishes, Glaze, Finishing Spirit,
Glues, Wood Stains, Gums, Resins, Shellacs.

PRICES FORWARDED ON APPLICATION.

TELEPHONE NO. 1499.

P. J. PETERSEN & CO.

Wholesale Druggists and Manufacturing Chemists,
CAPE TOWN & KIMBERLEY, CAPE OF GOOD HOPE.

ESTABLISHED 1842.

London Agents—**MESSRS. BORRADAILE & CO., 150 LEADENHALL STREET, E.C.**

P. J. P. & Co. can arrange with Pushing Houses to receive Goods on Commission, for Prompt Sale in this Colony and the adjoining States.

ACID. ACETIC. B.P., ACID. ACETIC. GLACIAL. Pure for Vinegar & Pickles.
PEROXIDE of HYDROGEN, for Bleaching Feathers, Hair, Silk, Jute, Ivory, Bone, &c.
NITRATE of AMMONIA. Pure for Dental purposes. Common for Ice Machines.
PHOSPHORIC ACID, B.P. strength and concentrated, Pure and Free from Arsenic.
LIQ. FERRI PERCHLOR. FORT., B.P. Free from Arsenic, and Soluble in Spirit.
HYPOPHOSPHITES of LIME, SODA, &c. CYANIDE of POTASSIUM.

Ferri et Ammon. Cit., Ferri et Quinæ Cit., B.P., and other Scale Preparations.

DUNN & CO., Stirling Chemical Works, WEST HAM, LONDON.

"SPECIALITIES" OF WIDE REPUTATION

Suitably Packed for Home and Export, in various Languages, for all Markets.

'COAGULINE' The Best Cement for all Broken Articles. LINEED. Chloro.-Linseed and Throat Lozenges, Jujubes, &c.	'LAVA' A fusible impermeable CEMENT. Patent "Glass Valve" For Testing Bottles. CUE CEMENT, Cue Tips, Wafers, FIXERS, CHALKS, &c.	COMPOUND ESSENCE OF LINSEED, Aniseed, Senega, Squill, Tolu, &c. OXYMEL SCILLÆ (exceptionally brilliant) Dec. Senega & Co. Conco. PHOSPHOSUGGARITE. GLYCERINE. Linum Glycerinum.	'SAPO-LINI' (Saponified Linseed Jelly). EMOLLIENT For Chapped Hands, &c. ELASTIC STOCKINGS, KNEE CAPS, SOCKS, ETC. MERRICK'S PATENT BELTS, For Abdomen, Back, &c.	CHEMICAL DISINFECTANT. BIRD LIME. GUN COVER and CARRIER. "THERMONE," or HEAT RADIATOR.	TIC PILLS, LINUM CATHARTICUM PILLS, Asphallia PILLS, &c.
---	--	--	---	---	---

Prices, Circulars with Name and Address, Specimens, Show Cards, Glass Tablets, &c., &c., on application.

KAY BROTHERS LIMITED, Laboratory and Works, **ST. PETERSGATE MILLS, STOCKPORT,** Founded A.D. 1786.
Incorporated 1887.

CRESCENT



BRAND.

BICARBONATE OF SODA,

REFINED AND RECRYSTALLIZED.

PURE AND CHEAP.

ANALYSIS.

Bicarbonate of Soda	...	...	...	...	97'20
Mono Carbonate of Soda	...	...	...	...	1'90
Sulphate of Soda	...	...	...	...	trace
Chloride of Sodium	...	...	...	...	'035
Moisture	...	...	...	...	'82
Insoluble	...	...	...	...	nil

PURE ALKALI,

GUARANTEED 58 DEGREES,

EQUAL TO 98 PER CENT. OF CARBONATE OF SODA.

Most economical form of Soda for the use of Printers,
Bleachers, Dyers; Glass, Paper, and Soap Makers.

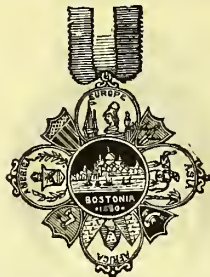
SODA CRYSTALS

OF THE FINEST QUALITY.

BRUNNER, MOND & CO., LIM.

*Manufacturers of Soda by the Ammonia Process
(Solvay's & Mond's Patents),*

NORTHWICH, CHESHIRE.



SIR JAMES MURRAY'S PURE FLUID MAGNESIA.

As Prepared by the Discoverer, SIR JAMES MURRAY, M.D.

FOR OVER 60 YEARS IN USE AS AN EXCELLENT REMEDY FOR ALL DISEASES OF THE STOMACH AND LIVER.

In Summer time, and in warm climates, it is invaluable, as it cools the Blood and improves the system generally.

It is the only known Drug which cures that most unpleasant of all maladies, viz., a HEADACHE. In cases of Gout and Indigestion it is indispensable.

AND IN THE NURSERY IT IS INVALUABLE. SPOKEN OF MOST HIGHLY BY ALL THE PROFESSION.

Sold by all respectable Chemists, in Large sized Bottles (the 1s. size containing nearly Double the Quantity usually sold at that price), at 1s., 2s. 6d., and 3s. 6d. each. Also in Winchester Quarts for Dispensary and Hospital use.

CAUTION.—Observe the SIGNATURE of the Inventor on EVERY LABEL.

SIR JAMES MURRAY & SON, CHEMICAL WORKS, TEMPLE ST., DUBLIN.

Wholesale Agents—BARCLAY & SONS, 95 Farringdon Street, London.



BUYERS ARE CAUTIONED TO SEE THAT THEY GET THE GENUINE



DR. JOHN HOOPER'S PILLS,

Which may be known by the Name of the Inventor being on the Government Stamp.

Handbills and Show Cards will be sent on application to

MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON, E.C.

AMERICAN BUYERS are particularly Cautioned!!

Telegraphic Address—"FEEDING BOTTLES LONDON."

TRADE MARK.



SODEN MINERAL PASTILLES

TRADE MARK



Universally Acknowledged the Best Remedy for Affections of the THROAT, CHEST, and LUNGS. Recommended by the greatest Medical Authorities, especially by SIR MORELL MACKENZIE, whose Testimonial is affixed to each box.

They are irresistible in the cure of all Chronic Catarrhal Affections, as

Coughs, Colds, Bronchitis, Asthma, Irritation, Diphtheria, and Catarrh of the Stomach.

They are Nature's own Medicine, and contain neither drugs nor anodynes; may therefore be safely given even to children of tender age. Nobody old or young, should ever be without them, their effect being equally wonderful as a

PREVENTIVE AND A CURATIVE.

Sold in Boxes, 1s. 1½d., by all Chemists, and by the

**SODEN MINERAL PRODUCE COMPANY, LIMITED,
52 BREAD STREET, CHEAPSIDE, LONDON.**

WYLEYS & CO.

MANUFACTURING CHEMISTS

AND

DRUG GRINDERS.

WAREHOUSES, LABORATORIES, AND DRUG MILLS,

COVENTRY.

WYLEYS' PEARL-COATED PILLS.

All mixing, cutting, rounding, picking, &c., is accomplished with the aid of steam machinery, by which means we attain a uniformity in composition and size such as cannot be equalled by hand-work.

For finish, and general good appearance, they will compare most favourably with any in the market.

WYLEYS' GELATINE-COATED OVAL PILLS.

The only oval gelatine-coated pills of English manufacture in the market.

Our "Prices Current" contains an extensive list of coated pills, showing formulæ and prices, together with a number of TESTIMONIALS. Estimates for private formulæ supplied.

COMPOUND SULPHUR PELLETS

ACCORDING TO THE FORMULA OF

SIR ALFRED B. GARROD.

Each Pellet contains Five Grains of Pure Sulphur and One Grain of Cream of Tartar.

PRICE, in bulk, 2/6 per lb.; or put up in metallic boxes (20 pellets in each), with descriptive labels, 2/- per dozen.

GASTRIC ANTACID PELLETS,

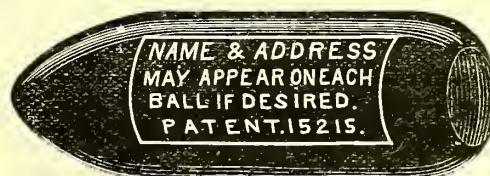
ACCORDING TO THE FORMULA OF

SIR WILLIAM ROBERTS.

PRICE, in bulk, 2/6 per lb.; or put up in metallic boxes (20 pellets in each), with descriptive labels, 2/- per dozen.

THE DURAPLASTIC COATED HORSE BALL.

(PATENTED.)



"The obvious superiority of these balls over the old paper-wrapped articles will impress the most stolidly conservative of farmers."—*The Chemist and Druggist*, October 27, 1888.

No. 4.—Alterative Balls	...	...	24/	per gross.
" 5.—Astringent Balls	...	...	24/	"
" 12.—Condition Balls	...	...	24/	"
" 6.—Cordial Balls	...	...	24/	"
" 7.—Cough Balls	...	...	24/	"
" 16.—Cough Balls	...	...	27/	"
" 17.—Cough Balls	...	...	27/	"
" 8.—Diuretic Balls	...	...	24/	"
" 9.—Fever Balls...	...	...	24/	"
" 1.—Physic Balls	...	...	24/	"
" 2.—Physic Balls	...	...	30/	"
" 3.—Physic Balls	...	...	36/	"
" 18.—Physic Balls	...	...	42/	"
" 19.—Physic Balls	...	...	48/	"
" 15.—Stimulating Balls	...	...	24/	"
" 10.—Tonic Balls...	...	...	24/	"
" 11.—Tonic Balls...	...	...	20/	"
" 13.—Worm Balls	...	...	30/	"
" 14.—Worm Balls	...	...	60/	"

PRIVATE FORMULÆ.

WYLEYS & CO. will be glad to prepare Patent Duraplastic Balls from private recipes.

NOTICE.

TOWLE'S PENNYROYAL & STEEL PILLS

Mr. E. T. TOWLE, of Dryden Street, Nottingham, Chemist and Druggist, begs to inform the Trade and the Public that he is possessed of the sole right to manufacture and sell TOWLE'S PENNYROYAL AND STEEL PILLS, and no other person or firm is intrusted in such business.

All orders to be addressed to Mr. E. T. TOWLE, or to his recognised Agents.

(Signed) EDWD. T. TOWLE, Nottingham.



CAUTION. Immediate proceedings will be taken against all persons pirating the Title, Name, or Trade Mark.

"FOR THE BLOOD IS THE LIFE."

CLARKE'S WORLD FAMED BLOOD MIXTURE, THE GREAT BLOOD PURIFIER AND RESTORER.

(Trade Mark—"BLOOD MIXTURE." Registered No. 3275.)


The Celebrated CURE FOR Scrofula, Scurvy, Eczema, Blood and Skin Diseases, and Sores of all kinds.





Wholesale of all the Wholesale Houses. Usual terms.

Sole Proprietors, THE LINCOLN & MIDLAND COUNTIES' DRUG COMPANY, LINCOLN.

Counter Bills and Posters, with Name and Address, also Show Cards, on application. Printed matter supplied in any Language for Foreign Agents.
CAUTION.—The Proprietors will take immediate proceedings against all persons pirating their Trade Mark, "Blood Mixture," Labels, Wrappers, &c., or Advertisements, or in any way infringing their rights.

RAIMES' CACHOUS.

RED AND WHITE ROSES, The most popular Cachou in the Trade. Size and Shape FRAGRANT "BOUQUET" CACHOUS 

HELIOTROPE  VIOLET  ORANGE BLOSSOM  PRIMROSE 

The excellence of the perfume and the superior make of these Cachous create a great demand wherever they are introduced.
Price 2s. 6d. per lb., 5 per cent. discount. Samples on application.
Parcels of 14 lbs. forwarded carriage paid, with a handsome Glass Show Jar gratis (fig. A, No. 5, Maw's list), on receipt of P.O.O. for 33s.

RAIMES & CO., WHOLESALE DRUGGISTS, YORK & EDINBURGH.

BARRON, HARVEYS & CO.

GILTSPUR STREET, LONDON, E.C.

Beg to inform their friends and the Trade generally that, having purchased the Business of

BARRON, SQUIRE & CO., BUSH LANE,

and also the various Formulæ of the Special Preparations of

JAMES BASS & SONS, HATTON GARDEN,

they are prepared to execute orders for the same, and pledge themselves to supply them in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

OPPENHEIMER'S CREAM OF MALT

(REGISTERED),

WITH COD-LIVER OIL,
AND THE
HYPOPHOSPHITES OF LIME, POTASH, AND SODA.

Can be obtained from all Wholesale Houses, or direct from the Sole Manufacturers,

OPPENHEIMER BROS. & CO., Manufacturing Chemists,
1 & 3 SUN STREET, FINSBURY SQUARE, LONDON, E.C.

NOTICE!!!

ALL WHOLESALE BUYERS OF

Castor Oil
Almond Oil
Olive Oil
Cod Liver Oil
Acetic Acid
Tartaric Acid
&c.

Phosphoric Acid
Citric Acid
Camphor
Glycerine
Glucose
Tartar Emetic
&c.

Castile Soap
Pepsin, P.B.
Albumen
Cantharides
Herbs and Extracts
&c.

Insect Powder
Essence of Lemon
Neroli
Floral Waters
Perfumes
&c.

Or any other kind or description of **OILS, CHEMICALS, DRY SALTERIES, DRUGS, ESSENTIAL OILS,**
should write for samples and quotations to

FUERST BROS., 4 COPTHALL BUILDINGS, LONDON, E.C.
IMPORTERS ON COMMISSION. [3]

N.B.—ALL CURRENT ARTICLES KEPT IN STOCK IN ORIGINAL PACKAGES.

CHEMISTS WHO HAVE FAILED

To find a suitable Malt Extract should give Loefflund's a trial. It neither ferments nor crystallises, and is absolutely pure.
In 2 cwt. casks, 28 lb. tins, 7 lb. tins. Also Malt Extract and Cod Liver Oil in Bulk.

LOEFLUND'S

KINDERMILCH & ALPINE MILK BISCUITS (POWDERED) (INFANT'S FOODS)

Are prescribed by the leading specialists in diseases of children.

LOEFLUND'S CREAM EMULSION (Cremor Hordeatus)

Is invaluable to those who cannot assimilate Cod Liver Oil.

Sole Agents—**ROBERT BAELEZ & CO., 14-20 ST. MARY AXE, E.C.**

LOFTHOUSE & SALTMER,
MANUFACTURING CHEMISTS, WHOLESALE & EXPORT DRUG MERCHANTS,
HULL,

Manufacturers of all Pharmaceutical Preparations on the best and most improved principles.
QUOTATIONS ON APPLICATION.

SOLUT. ÆTHERIS NITROSI (Æther. Hyponit.)

1 part to 5 Sp. Vini Rect. 56 o.p. makes Sp. Æth. Nit. 850.

This col. entrated preparation, carefully drawn in our own laboratory, is highly recommended, and daily finding increased favour with the trade for making Sp. Nitre, as required for use, thus avoiding the risk of loss of Nitrous Æther, and the development of free acid, both of which are almost certain to occur in Spts. Nitre which has been some time drawn.

Price in 1lb. Bottles, 3s. per lb.; in Winchester Quarts, 2s. 10d. per lb., net.

Importers of Cod Liver, Castor, and Olive Oils; Otto de Rose, and all Essential Oils; Valentinia
Saffron; Vanillas; Fruit Essences; Carmine; Aniline Dyes; Bees Wax, &c., &c. Applications
for Special Quotations invited.

All
Wholesale
Houses.

COD LIVER OIL

43
SNOW HILL
E.C.

LONDON, CHRISTIANIA, STAMSUND, AND SYLTEFJORD.

INTERNATIONAL FISHERIES EXHIBITION, LONDON, 1883.

COD LIVER OIL.

The Only GOLD MEDAL

For British Exhibitors was awarded to

T. J. SMITH,

10 & 11 NORTH CHURCH SIDE, HULL.

Importer of Norwegian, Newfoundland, & other varieties.

Low Quotations on application. Delivered at London or Liverpool.

NO MORPHIA, OPIUM, OR CHLORO-DYNE.



**SAM SMITH'S
BRONCHITIS MIXTURE**

1/- FOR COUGHS, ASTHMA, BRONCHITIS,
DIFFICULTY OF BREATHING AND COLDS OF ANY KIND 1/-

CAN BE HAD FROM ALL CHEMISTS AND DRUGGISTS.

Wholesale Agents:—RAIMES & CO., York; GOODALL, BACKHOUSE & CO., Leeds; HIRST, BROOKE & HIRST, Leeds.

**EUCALYPTUS OIL, EUCALYPTOL,
RED GUM, &c.**

MEDICAL, TOILET, & SANITARY SPECIALITIES
Prepared from the Eucalyptus Oil, which is one of the strongest Antiseptics known.

Eucalyptus Disinfectant Fluid and Powder, Extract, Emulsion, Ointment, Spray, Surgical Dressings, &c., &c. Red Gum Lozenges, Tincture, &c.

DR. DAY'S SPECIALITIES.

EUCALYPTOL CREAM, LINIMENT, DENTIFRICE, TOOTH POWDER, HAIR WASH, &c.

Also Dr. Day's TONIC APERIENT PILLS.

PRICES, &c., ON APPLICATION.

J. TUCKER & CO.

Wholesale Drug and Medicine Agents,
51 PADDINGTON ST., LONDON, W.

The Mormon Elder's

DAMIANA WAFERS

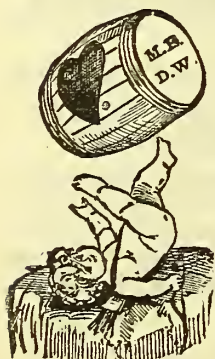
THE MOST POWERFUL
INVIGORANT
EVER PRODUCED.

Permanently restores those weakened by early indiscretions, imparts youthful vigor, restores vitality, strengthens and invigorates the BRAIN AND NERVES. A positive cure for IMPOTENCY and Nervous Debility. Prompt, Safe, and Sure. 4/6 per box, 6 for 22/6. Usual discount to the Trade. Send for Circular.

F. B. CROUCH,

202 Grand Street, New York City
London Depot, 51 Strand, W.C.

Hovenden & Son, Sanger & Son,
Barclay & Sons, Edwards & Son, and
all Wholesale Druggists.



*Eucalyptus
Globulus*

We distil pure oil of Eucalyptus **GLOBULUS**, (which contains 66 per cent. of Eucalyptol, far in excess of any other variety) as a by-product in the manufacture of our Eucalyptus Boiling Fluid, and are therefore, enabled to place it in quantities at a much lower rate than has heretofore been asked for it.

DOWNIE B. I. P. CO.

4 REDCROSS STREET, LIVERPOOL; and
204 MARKET ST., SAN FRANCISCO.

**PURE
CARBONATE OF LITHIA**

and all other Lithia Salts.

MERCURIALS

Calomel, Corrosive Sublimate, Oxides, &c.

IODOFORM

Chloral, Terpene, Osmic Acid, Tannin, Tartar Emetic.

LIQUID CHLORIDE OF METHYL, for the treatment of Rheumatism, Neuralgia, &c.

GRAND PRIX, PARIS EXHIBITION, 1889.

Wholesale from **FUERST BROS.**, 4 Copthall Buildings, London, E.C.

Sole Agents for **BILLAULT**, Rue Sorbonne, PARIS.
N.B.—Stock of the above kept in London.

EADE'S

CELEBRATED

GOUT

AND RHEUMATIC

PILLS.

**THE SAFEST and MOST
EFFECTUAL CURE for**

Gout,
Rheumatism,
Rheumatic Gout,
Lumbago,
Pains in the Head,
Face, and Limbs, &c.

They require neither confinement nor alteration of diet, and in no case can their effect be injurious.

Prepared only by **GEORGE EADE**, 72 Goswell Road, London, and sold by all Chemists, in bottles, 1s. 1½d.; three in one, 2s. 9d.

C. F. Boehringer & Soehne.

Hydrochlorate of Cocaine

“Boehringer.”

Recommended by Professor Dr. SCHRÖTTER, of Vienna ; Professor STÖRK, of Vienna ; Professor STELLWAG, of Vienna ; Professor Dr. JURASZ, of Heidelberg ; Professor Dr. E. FISCHER, of Strassburg ; Professor Dr. RIEDINGER, of Würzburg ; Professor Dr. G. DRAGENDORFF, of Dorpat ; Dr. K. EMELE, of Graz ; Dr. LEOPOLD LANDAU, of Berlin ; Dr. HERRNHEISER, of Prague ; Dr. BENJ. PAUL, of London ; Professor CASIMIRO MANASSEI, of Rome ; Dr. DANTONE, of Rome, and other authorities

As an excellent, thoroughly reliable Preparation.

.....

Obtainable at all Wholesale Druggists'.

[1]

Waldhof, near Mannheim.

DR. LALOR'S PHOSPHODYNE



For TWENTY-FIVE YEARS has maintained its world-wide reputation as THE ONLY SAFE RELIABLE PHOSPHORIC REMEDY ever discovered for the Permanent Cure of Brain Wreckage, Paralysis, Sleeplessness, Harassing Dreams, Premature Decay of Vital Power, and all Functional and Diseased Conditions of the System dependent upon the Deficiency of the Vital Forces. It Cures Dyspepsia, Nerve and Heart Disease. Cures Kidney and Liver Complaints. Cures all Blood Disorders. Cures Consumption and General Debility. Checks all Wasting of the Vital Forces, from whatever cause arising.

THE EFFECT of this Standard Phosphoric Remedy in Nervous Debility and its Kindred Evils is Immediate and Permanent, all the Miserable Feelings and Distressing Symptoms disappearing with a rapidity that is REALLY MARVELLOUS.

DR. LALOR'S PHOSPHODYNE

HEALTH, STRENGTH, AND ENERGY.

Is the only Medicine of the kind or name awarded a Certificate of Merit at the Calcutta Exhibition, 1883-4, where all Countries were Exhibitors, and the only Trade Mark—"PHOSPHODYNE"—Registered and Protected under the Trade Marks Act.

THOUSANDS of unimpeachable Testimonials from all parts of the World, and from the highest Medical Authorities, prove conclusively the Verdict Universal that in the World of scientific research no other Phosphoric Preparation has received such exalted praise and distinguished recognition.

Full Printed Directions for the guidance of Patients in the Self-Treatment of the above Diseases are enclosed with each Bottle.

Sold in bottles at 4s. 6d. and 11s. by all Chemists throughout the World.

MANUFACTURED ONLY AT

DR. LALOR'S PHOSPHODYNE

LABORATORY,
HAMPSTEAD, LONDON, N.W.

SULPHATE OF QUININE

(GOLD AND SILVER BRAND)

QUININE FACTORY AUERBACH

(DR. SEYFERTH).

Certified by Professor Fresenius, of Wiesbaden, as equal to the best preparations of other marks.

THE FACTORY SUPPLIED THE
RUSSIAN, AUSTRIAN, and DUTCH GOVERNMENTS
during last Season.

DEUTSCHE GOLD AND SILBER SCHEIDE ANSTALT

(VORMALS ROSSLER),

FRANKFORT-ON-MAINE

CYANIDE OF POTASSIUM,
IODIDE OF POTASSIUM,
BROMIDE OF POTASSIUM,
NITRATE OF SILVER,
CHLORIDE OF GOLD,
SULPHOCYANIDE OF BARIUM,

IRON Reduced by HYDROGEN,
TARTARIC ACID,
HYDROCHINON,
STRONTIA,
MAGNESIA, and ALL OTHER

CHEMICALS for

PHOTOGRAPHIC and PHARMACEUTICAL PURPOSES, of the Best Quality.

Sole Agents—OSCAR ANDREAE & CO.

26 Great Tower Street, LONDON, E.C.

44

LEO & CO.

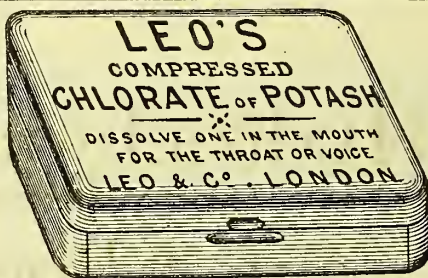
MANUFACTURERS OF

COMPRESSED

CHLORATE OF POTASH,

Chlorate of Potash and Borax,

&c., &c.



Our Goods are guaranteed the Best of any of the cheap Compressed Goods in the Market.

They are supplied by all the Wholesale Houses.

Quotations given for large and small quantities.

8 CREECHURCH LANE, LONDON, E.C.

KEMP'S "WHOO PALINE"

FOR

The Relief and Cure of Coughs, Colds, Bronchitis, Whooping-Cough, Loss of Voice, Difficulty of Breathing, and all Affections of the Chest, Throat, and Lungs.



PRICE 1s. 1 1/2d. and 2s. 9d. PER BOTTLE.

Sold by all Chemists and Patent Medicine Dealers.

"CUTTING COUNTERACTED."

MOONSEED BITTERS brings FULL PRICES.

WHY?

Because every one who retails Moonseed Bitters has to sign an Agreement or Contract in the following terms:—



MOONSEED BITTERS.

Above is Facsimile of
THE WRAPPER LABEL
 of the 2/9 size.
 It is also sold at 4/6.

MOONSEED OINTMENT.

Retails at 1/1½, 2/9, 4/6 per box.

Memorandum of Agreement made this.....day of..... 1889, between A. E. POWELL & COMPANY, of Swindon in the County of Wilts, Proprietors of the Moonseed Bitters and Moonseed Ointment (hereinafter called the "Vendors"), of the one part and of (hereinafter called "the Purchasers"), of the other part.

Whereby it is mutually agreed between the said parties hereto as follows:—

In consideration of the Vendors selling to and supplying the Purchasers with Moonseed Bitters, Moonseed Ointment, and other preparations manufactured and sold by them (hereinafter termed "the Goods") at their usual prices, the Purchasers will observe and perform the following terms and conditions:—

1. The Purchasers to sell the Goods retail for full printed prices only, and for each and every Bottle or Box of Moonseed Bitters, Ointment, or Pills sold by him or them at any less price, without the written consent of the Vendors, the Purchasers shall pay to the Vendors the Sum of Twenty Shillings in the nature of a penalty, to be recoverable as ascertained liquidated damages.

2. The Purchasers not to supply any Wholesale House nor to sell the Goods wholesale to any Chemist or Druggist or Medicine Vendor who will not previously enter into an Agreement to retail the same at prices in accordance with the preceding Clause No. 1 of these presents.

All Purchasers who have signed a similar form of Agreement to the foregoing will be supplied upon the Vendors' usual trade terms, but those Purchasers who do not sign a similar form of Agreement to be supplied upon the following terms only, namely:—RETAIL, 4s. 5d. for each and every 4s. 6d. Box or Bottle, 2s. 8d. for each and every 2s. 9d. Box or Bottle, and 1s. 0½d. for each and every 1s. 1½d. Box or Bottle—net in all cases. WHOLESALE, 4s. 4d. for each and every 4s. 6d. Box and Bottle, 2s. 7d. for each and every 2s. 9d. Box or Bottle, and 11½d. for each and every 1s. 1½d. Box or Bottle—net in all cases. This Agreement and the terms and conditions herein contained to remain in full force and virtue for the term of 7 years from the first day of March, 1889.

As witness the hands of the said parties hereto the day and year first above written.

We call attention to the important steps which we have taken to prevent our specialities being retailed at less than the advertised prices, and we ask the co-operation of the Trade in maintaining the integrity of the scheme whereby the sale of our preparations may always be retained by the legitimate trade. We will not only endeavour, by all means in our power, to prevent the advertised prices being "Cut," but will give Chemists every assistance and facility for making this a large as well as a paying business.

Please write for Terms and Form of Agreement. NOTE that we allow retailers of Moonseed Bitters 2s. 6d. per thousand for the Distribution of Pamphlets.

A. E. POWELL & CO., SWINDON.

COOK'S ANTISEPTIC SOAP

(THOMSON'S PATENT),

Has been tested in a Physiological Laboratory as a Germ Destroyer, and proved to be more efficient than any other experimented with.
(See "Journal of Chemical Industry, 1888, No. 3.) Of great value in CASES OF

ECZEMA, RINGWORM, SCABIES, FAVUS AND OTHER SKIN DISEASES.

See "The Lancet," 12 May, 1888, page 936.

Price in 3-Tablet Boxes, per doz. 12/-; Selling Price, 1/6; in 1/4-gross Boxes, 10/6 per box.

GOLD MEDAL, PARIS EXHIBITION, 1889.

Can be obtained through MESSRS. S. MAW, SON & THOMPSON, LONDON, or of

EDWARD COOK & CO., HOUSEHOLD and TOILET **SOAP MAKERS, LONDON, E.**

BRODIE'S IMPERIAL HAIRDYE.

(REGISTERED.)

ONE LIQUID. — Harmless, Perfect, Permanent, and Odourless. Clear, and without Sediment.

Guaranteed to contain no lead, or any other noxious ingredient.

BLACK, BROWN, LIGHT BROWN, OR GOLDEN.

TRADE PRICE LIST:—

No. 1.	1s. 0d.	size	--	--	7s. 0d. per doz. Nett
No. 2.	2s. 6d.	"	--	--	17s. 6d. "
No. 3.	3s. 6d.	"	--	--	24s. 6d. "
No. 4.	5s. 0d.	"	--	--	35s. 0d. "
No. 5.	10s. 6d.	"	--	--	73s. 6d. "

J. BRODIE, 41 Museum Street, **LONDON, W.C.**

OKELL'S ORIGINAL MONA BOUQUET

Retail, 1/, 1/8, & 3/6; Wholesale, 7/12, & 22/6 per doz.

This much-admired Perfume (first introduced by the late Joseph Okell) may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Sole Consignee—THOMAS WEST, 59 and 61 Chester Road, Stretford, Lancashire.

Special Agents—B. G. LENNON & CO., London, and Port Elizabeth Cape Town, and East London, South Africa.

"Cream of Magnolia."

MATCHLESS FOR THE COMPLEXION.

A Marvellous and Unique Preparation for Softening, Toning, and Beautifying the Skin.

INVALUABLE for removing Spots, Sunburns, Blotches and all Imperfections.

IMPARTS A VELVETY SOFTNESS AND BLOOM.

Glenders it Beautiful to the Eye, and deliciously soft to the Touch. Can be used with the most perfect safety to any child or infant.

In Bottles, post free, 2s. 6d., 4s., 7s., and 10s. 6d., or Sample Bottles, post free, 1s. 3d., direct from the Proprietor,

JOHN STEEDMAN,

47 FULHAM ROAD, LONDON, S.W.

ESTABLISHED 1836.

Ladies once using this Preparation will never be without it.

AVOID RISK OF CHILLS IN THE BATH BY USING

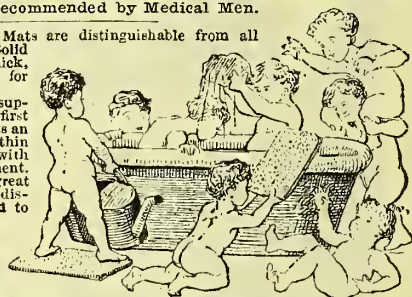
RANKIN'S CORK BATH MATS.

MAKES THE BEST CARRIAGE MAT. OF ALL CHEMISTS AND DRUGGISTS.
A Real Comfort. Recommended by Medical Men.

CAUTION.—These Mats are distinguishable from all others in being made of Solid Cork Wood, 1 inch thick, and are unequalled for warmth and comfort.

Valuable show-cards supplied to Retailers with first order; and with all Mats an equal number of fine thin cards of Cork printed with illustrated advertisement. These cards are a great novelty, and their free distribution will be found to assist sales materially.

PRICES.
3', 5', and 7' 6" each, free; extra sizes, 10' 6", 12' 6", and 15' each, superquality and finish.



WM. RANKIN & SONS, 10 CARLTON PLACE, GLASGOW.

HOPGOOD & CO'S HAIR NUTRITIVE & SEDATIVE CREAM

The only preparation for the Hair recommended by leading Physicians for the removal of Scurf, allaying irritation, preventing greyness and baldness, and producing a

LUXURIANT HEAD of HAIR.

In Bottles to retail at 1s. 6d., 2s., 2s. 6d., 3s. 6d., 5s.
Revised Wholesale Prices, 12s. 6d., 16s. 6d., 20s., 30s., and 42s. per dozen
Supplied by all Wholesale Sundry Houses,

OR FROM THE DEPOT—

OSBORNE, GARRETT & CO., 51 Prith St., Soho, London, W.

IMMENSE SALE.

WOODS' ARECA NUT TOOTH PASTE,

As used and recommended by Madame Marie Rose, the Prima Donna.

PRICE, 6d. and 1s. per Pot.

CAUTION.—SEE "WOODS, PLYMOUTH," ON EACH POT.



E. CHEESEMAN—J. HOLDSWORTH,
TRADING AS

OSBORNE, BAUER & CHEESEMAN

Perfumers to the Queen, 19 GOLDEN SQUARE, REGENT STREET, LONDON,

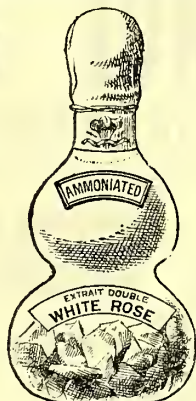
MANUFACTURERS OF THE BEST PERFUMERY IN ALL ITS BRANCHES

AND OF **PURE REFINED AND RE-MELTED SOAPS.**

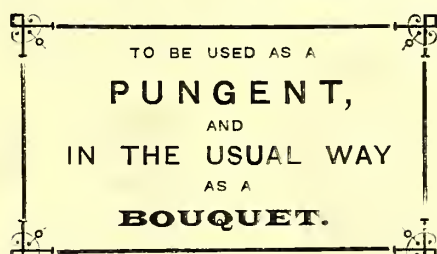
OLD STYLE. NOT "MILLED."

NEW SERIES OF

AMMONIATED



PERFUMES.



All Varieties of PERFUMES.
AN ELEGANT PRESENT.

(1/2 SIZE)

One Shape. One Price. Retail 2/6.
2 OR 3 IN FANCY BOXES.

SOLE PROPRIETORS OF THE FOLLOWING SPECIALITIES:

"BABY'S SOAP."

"CHILBLAIN JELLY."

"GLYCERINE AND HONEY JELLY."

"BAUER'S HEAD (AND BATH) SOAP."

"CRISTIN'S RUBY LIP BALM."

"THE INCOMPARABLE SMELLING SALTS,"

"Carbolic Acid and Tar Toilet Soap." "Cosmetic Petrolin Soap." "Cosmetic Petrolin Soap" (unscented). "Pure Oatmeal Soap" "Juniper Ta Oil Soap." "Marlborough Soap." "Petroleum or Dispensing Soap." "Sulphur Soap." The Real Old Windsor (blue packets) as made in the last century

H. P. TRUEFITT'S SPECIALITIES FOR THE HAIR.

Floral Extract, 3/6, 5/-,

10/6, 21/-

Egg Yulep, 2/-, 4/-

CONCENTRATED

Egg Yulep, 2/6,

5/-, 10/6.

Golden Fluid,

10/6, 21/-

EUXURON,

1/6.

&c.

Stimulating Lotion, 5/-

10/6.

Astringent and Tonic

Lotion, 5/-, 10/6.

Quinine and Arnica

Hair Wash, 3/6,

5/-, 10/6, 21/-

Arnica Wash,

3/6, 5/-,

10/6.

&c.

EUCHRISMA.
Combines in one clear fluid every valuable component both of a Hair-Grease and Wash.
3/6, 6/-, 10/6, 21/-

EAU RACINE.
For restoring the original colour of Grey Hair; superior to all other Restorers, being perfectly simple in its components. Price 6/-

An elegant Preparation for the Hair and Beard.
Price 2/6, 3/6, 5/-, 10/6, 21/-

BRILLANTINE.

H. P. TRUEFITT'S TONIC TOOTH BRUSH

(BY ROYAL LETTERS PATENT.)

PRICE ONE SHILLING.

20 & 21 Burlington Arcade; 13 & 14 Old Bond St., London.

"PRICE'S GLYCERINE"

(Originally Introduced in 1855).

**Guaranteed free from ARSENIC
and all other impurities.**

WHOLESALE FROM

**PRICE'S PATENT CANDLE CO.
LIMITED,**

London, Liverpool, and Manchester.



BOTTLE.



FIG. A.

6/- per Gross.
PENNY PURE
MENTHOL CONES.

BOTTLE OR VASE SHAPES.

2^d. Size, 12/- per Gross.

(As Figs. A or B, Stained and Varnished.)

All on $\frac{1}{4}$ -Gross Show Cards.

Sample Free.

PETER TYRER,
70 LONG LANE, BOROUGH, LONDON, S.E.



VASE.



FIG. B.

KNIGHT'S PATENT
'RELIANCE' GUM
 AND
LIQUID GLUE.

In 1d., 3d., 6d., 9d., and 1s. Bottles.

THE CHEAPEST AND STRONGEST ADHESIVES
IN THE MARKET.

Warranted Absolutely Free from Acid.



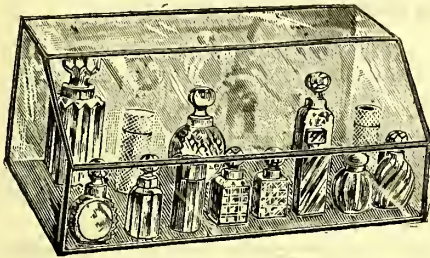
REGISTERED TRADE MARK.

KNIGHT & CO.

5 WATER LANE, GT. TOWER STREET, LONDON, E.C.

WHOLESALE AGENTS:—BARCLAY & SONS (Lim.), Farringdon Street, London, E.C.; F. NEWBERY SONS, King Edward Street, London, E.C.; S. MAW, SON & THOMPSON, Aldersgate Street, London, E.C. EDWARDS & SON, Queen Victoria Street, London, E.C.; THOMPSON, WALTERS, HOLE & CO. (Lim.), Curtain Road, London, E.C.

CHEMISTS & CHRISTMAS

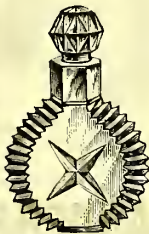


Until Christmas I will supply 21/- worth of assorted bottles at my list prices (which, to start with, are very low compared with other houses) for 20/-. together with a pretty little case for window or counter use. The case, while being small, is very handy, opening at the back, so that the bottles can be got at from the counter. It is lined with maroon velvet, and has a mirror back. Leave the assortment to me, and you can rely on saleable ones only being sent.

☛ This opportunity should not be missed, as Smelling Bottles certainly come among the few things a Chemist can sell at Christmas time for Presents.

Below are particulars of a few good Saleable Bottles that can be really well recommended.

- | No. | doz. |
|--|------|
| 8. Large Watch.. | 6/6 |
| 20. Small No. 8 .. | 5/3 |
| 11. Toilet Bottle, crystal cut polished stopper 18/ | |
| 122. Small elaborately cut watch | 4/9 |
| 71. English stoppered bottle, firm base .. | 6/ |
| 43. Toilet shape, short and wide mouth .. | 7/ |
| 113. Similar bottle to No. 10, but smaller, assorted cuttings .. | 5/ |



8



122



11



71



43

This is not the time to advertise MENTHOL CONES. Headaches will follow after Christmas. But don't forget, if you want Cones, to order Shirley's.

- | No. | doz. |
|--|------|
| 105. Silver mounted watch, for perfume .. | 9/ |
| 108. Flat watch, polished stopper | 7/ |
| 109. A capital watch cheap & pretty | 6/ |
| 110. New pattern, long tube shape rose stopper .. | 7/ |
| 111. Square tube .. | 7/ |
| 112. Watch, with coloured horse-shoe mounted in it.. | 5/3 |
| 116. Wide mouth, toilet shape .. | 6/6 |
| 121. Sensible squat bottle, large mouth .. | 10/ |



A1 VIOLET POWDER A1 FULLERS' EARTH

PREPARED WITH
LANOLINE.

(Provisional Patent, No. 4613.)



These Preparations will, without doubt, be found far superior to anything of the kind ever offered for sale, as **LANOLINE**, being the natural fat of the skin, is especially suitable for applying thereto, on account of its emollient and absorbent properties. These will be essentially Chemists' lines, and should be taken up by them as a set-off against the ordinary Fullers' Earth and Violet Powder sold by Grocers, Stores, &c. Once you persuade your customers to buy this article, it is perfectly certain that they will buy no other.

A HANDSOME SHOW CARD

Has been got up so as to assist the sale, and the articles themselves are attractively wrapped in blue and pink wrappers printed in coloured ink.

Price per dozen—4d. size, 2/4; 6d. size, 3/6; packed 1 dozen in a Cartoon.

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

N.B.—Various MEDICATED POWDERS in which LANOLINE is introduced will be ready shortly.

"THE CHEMIST AND DRUGGIST" says:—"Mr. Shirley is fairly entitled to claim—in regard to the Violet Powder, for instance—that it is far superior to the ordinary Violet Powder, on account of its emollient and absorbent properties. Indeed, the powders are a distinct acquisition to the nursery and toilet."

ARTHUR W. SHIRLEY, 30 PATERNOSTER SQUARE, LONDON, E.C.
And 11, 12, and 13 ROSE STREET, E.C.

"THE MASHER, THE MAID, AND THE SCENT."**"Where are you going to, my pretty Maid?"****"To buy some Perfumery, Sir," she said.****"What sort of Perfume, my pretty Maid?"****"The Scent of the Lilies, Sir," she said.****"And why that Perfume, my pretty Maid?"****"Because it's THE BEST, you juggins," she said.***[To be continued next week.]*

And the Maid was right. It is the best and most *recherché* Perfume before the public, and is now being sold along with our other new Registered Perfume, **"The Scent of the Hayfields,"** by all the leading Chemists

In 1, 2, 4, 8, and 16 oz. Bottles, to Retail at 2s., 3s. 6d., 6s. 6d., 12s., and 2rs. each.

Telegrams:
'ALSACE LONDON.'

G. VOGT & CO.

19 Laurence Pountney Lane
CANNON ST., E.C.

TURNED METAL FLASK & BOTTLE CAPS

For Spirits, Oils, Perfumes,
Salts, &c.



MANUFACTURERS:

H. G. SANDERS & SON,

Victoria Works, Victoria Gardens, Notting Hill Gate, LONDON, W.

Established 1820. Telegraphic Address—"COLLAPSIBLE LONDON."

EDWARDS' INSTANTANEOUS HARLENE

Positively forces the HAIR, WHISKERS, and MOUSTACHIOS to grow heavily in a few weeks without injury to the skin, and no matter at what age. The world-renowned remedy for baldness from whatever cause arising. As a producer of whiskers and moustachios it has never been equalled. As a curer of weak and thin eyelashes, or restoring grey hair to its original colour, it never fails.

1/-, 2/6, 3/6, and 5/6 per Bottle.

NOTICE.—Show-cards and Circulars, Terms, and all other Particulars may be had by writing direct to us.

Agents Wanted, Country and Abroad.

EDWARDS & CO.

5c NEW OXFORD ST., LONDON, W.C.



Violet
Parfumeur PARIS
29, Bd des Italiens

PERFUMERY AND TOILET SOAPS.

NEW PERFUMES:

ESSENCE MELILA
KI-LOE DU JAPON

FLORES ANDINAS
WHITE VIOLET

ROYAL THRIDACE SOAP.**VELOUTINE SOAP.**

Besides all leading and staple odors.

The Violet Toilet Soaps, Perfumery, and Toilet Requisites are the leading brands throughout Europe. They are undoubtedly the finest and highest grade goods made.

ESCHMANN BROS. & WALSH,

Inventors and Manufacturers of the

SOFT SILK FLEXIBLE CATHETER,**GUARANTEED WITH WOVEN EYES.**

To be had of all Surgical Instrument Makers
and Wholesale Houses.

"BUBBLES."

This artistic SHOWCARD, measuring $21\frac{1}{2}$ in. by 30 in.,
the *chef-d'œuvre* of

SIR JOHN E. MILLAIS, B.T. R.A.

produced at a cost of

£20,000.

is now ready for delivery, and a copy will be supplied FREE
and Carriage Paid with orders of £5 AND UPWARDS, con-
ditionally upon a fair and proper display being guaranteed.
This Showcard (*of which a duplicate copy cannot be supplied*) is
a fac-simile reproduction of the original, purchased for £2,200.

A. & F. PEARS.

Depots:

LONDON: 71-75 New Oxford Street, W.C., LONDON.
NEW YORK: 365 and 367 Canal Street, NEW YORK.
MELBOURNE: 132 Collins Street West, MELBOURNE.

PARIS EXHIBITION 1889.

PRIZE MEDAL

AWARDED TO



"SALVO PETROLIA"

(VASELINE).

Absolutely Genuine Paraffinum Molle of the very Purest Form, and we claim that it is superior to Vaseline.

Packed in Tins, 1, 5, 10, 14, 28, 56, and 112 lbs.

"OLEUM DEELINÆ"

(REGISTERED).

Universally adopted by the Medical profession
FOR

**OPHTHALMIA, SCURVY, RINGWORM, AND
SKIN DISEASES**

OF EVERY DESCRIPTION, AND FOR

EXTERNAL & INTERNAL IRRITATION.

ECZEMA

OF EVERY DESCRIPTION.

Irritation of any kind.

PACKED IN CASES—

One Doz. 1s. 6d. Bottles; One Doz. 2s. 6d. Bottles;
or half of each.

TESTIMONIALS MAY BE HAD UPON APPLICATION.

Manufactured Solely by the Proprietors,

THE DEE OIL COMPANY, LIM.

Works—SALTNEY, CHESTER.

OFFICES:

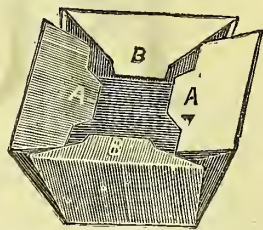
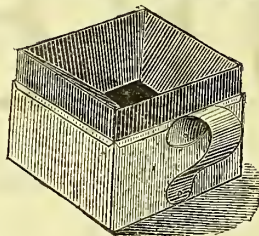
LONDON — 38 LEADENHALL ST., E.C.

Liverpool, Dublin, Manchester, Glasgow, Hull, Cardiff,
Bristol, Belfast, Barrow-in-Furness, Nottingham,
Paris, Hamburg, &c.

SANITARY CUSPIDORES,

OR

SPITTING CUPS FOR INVALIDS.



(PATENTED—No. 5673.)

Consisting of a Metal Frame, into which a receptacle is placed for expectoration, &c., in Sick Rooms and Hospital Wards.

The receptacle can be removed and destroyed after use, thus affording comfort to the patient, and preventing the necessity of washing out as is the case with ordinary Spitting Cups.

In Cartoons containing 5, with metal frame, at 7s. per doz.
Cartoons, or loose, 40s. per 1,000; frames, 20s. per 100.

SUBJECT TO DISCOUNT IN QUANTITY.

SOLE MANUFACTURING AGENTS:

SEABURY & JOHNSON,

21 Platt Street, NEW YORK;

46 JEWIN STREET, LONDON, E.C.

May be obtained through any of the Wholesale Houses.

THE IMPROVED MUSTARD PLASTER THAT NEVER BLISTERS THE SKIN.



TRADE MARK.

COOPER'S SINAPINE MUSTARD TISSUE PAPER.

For Medical Testimonials see *Chemist and Druggist*, January 26, 1889.

Inventors and Sole Manufacturers:

COOPER & CO.

Pharmaceutical Chemists,

GLOUCESTER ROAD, SOUTH KENSINGTON, S.W.

Established 1863.

May be obtained of Wholesale Agents throughout the
civilised world.

Trade Mark.



Registered.

THE ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,

12 PAUL MALL EAST, LONDON. S.W.

SOLE AGENTS FOR DR. WARLDMONT'S CALF VACCINE.

Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.
HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Tubes, two-thirds full, 1s. 5d. each; Tubes one-third full and Lancel-charged points, 1s. each; Pin-points, 1s. 1d. each. Eighteen charged Small Points, 5s. Tubes, two-thirds full (same as those mentioned above, but without source), in quantities for export, £5 per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccine Ejectors, 1s. 3d. each, including postage. Vaccinations by appointment. F.O.O.'s (including postage, and crossed London and Westminster Bank), with orders, payable to
EDWARD DARKE Secretary.

Office hours, 10 to 4. Saturdays 10 to 2.

S. MAW, SON & THOMPSON'S
WHITE ROSE TOOTH PASTE.

WARRANTED TO KEEP IN ANY CLIMATE.

In Square Earthenware Boxes, Gilt Burnt-in Labels, 12s. per dozen.

S. MAW, SON & THOMPSON'S
CHERRY TOOTH PASTE,

WARRANTED TO KEEP IN ANY CLIMATE.

In Round Earthenware Boxes, Burnt-in Labels, 3s. 9d. and 7s. 0d. per dozen.

S. MAW, SON & THOMPSON'S
AROMATIC TOOTH PASTE.

WARRANTED TO KEEP IN ANY CLIMATE.

In Square Earthenware Boxes, Burnt-in Labels, 10s. 6d. per dozen.

S. MAW, SON & THOMPSON'S
ARECA TOOTH PASTE.

WARRANTED TO KEEP IN ANY CLIMATE.

In Round Earthenware Boxes, Burnt-in Labels, 3s. 9d. and 7s. 0d. per dozen.

S. MAW, SON & THOMPSON'S
CAMPHORATED TOOTH PASTE

WARRANTED TO KEEP IN ANY CLIMATE.

In Round Earthenware Boxes, Burnt-in Labels, 3s. 6d. and 6s. 6d. per dozen.

S. MAW, SON & THOMPSON, LONDON.



Cable Address—
'Acme London.'

Send for
Special Detailed
Price List and Circular.

HANDSOME STATUETTES,
under Glass Show-case, perfectly fitted, also
Show Cards and Circulars Free upon Stocking my goods

OBTAINABLE FROM EVERY WHOLESALE HOUSE.

Full information from the Absolute Inventor and Manufacturer,

VINCENT WOOD

29, 30, 31 Paternoster Square,
11, 12, 13 Rose Street, Newgate Street, LONDON, E.C.

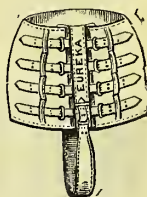


PIRATES! BEWARE!!
Chemists are requested to abstain from Purchasing
their stock of Chest and Lung Protectors until they
have inspected our

**"EUREKA" MEDICATED PINE WOOL
FELT SPECIALITIES.**

THOROUGHLY

WASHABLE.



Dépôts
at Paris, Brusse
and New York, U.S.A.
Factories at
Stratford, Nottingham, and Rose St.



ELASTIC STOCKINGS &c

LINT.

GAMGEE TISSUE.

(PATENT ABSORBENT GAUZE AND
COTTON WOOL.)

**ABSORBENT
COTTON WOOL.**

ROLL BANDAGES.

ROBINSON & SONS,

COTTON SPINNERS AND MANUFACTURERS OF

SURGEONS' LINTS, COTTON WOOLS,

AND BANDAGES,

WHEAT BRIDGE MILLS,

NEAR CHESTERFIELD.

Depot—55 Fann Street, Aldersgate Street, London.



TRADE MARK.

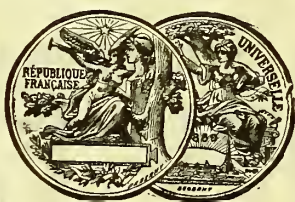
G. B. KENT & SONS

Have been awarded the ONLY



A.D. 1777.

GOLD MEDAL



At the Paris Exhibition, 1889, for

ENGLISH BRUSHES

See Advt. pp. 374 to 377 in "C. & D. Diary," 1890.

NOTICE!!

ADVANCE IN PRICE.

On and after January 1st, 1890, the price of
SEABURY'S SULPHUR CANDLES will be 8s.

per doz. When a smaller quantity than 1 doz.
is ordered, the price will be 9s. per doz.

SUBJECT TO THE USUAL DISCOUNT.

46 Jewin Street,
London, E.C., Dec. 6, 1889.

SEABURY & JOHNSON.

SEABURY PHARMACAL LABORATORIES,

NEW YORK and LONDON.

The New Antiseptic, Germicide, and Preservative.

"HYDRONAPHTHOL"

TRADE MARK.

Non-poisonous, Non-corrosive, Odourless, and
Non-irritating.

Sole Manufacturers and Proprietors,

SEABURY & JOHNSON,

MANUFACTURING CHEMISTS,

21 PLATT STREET, NEW YORK.

46 Jewin Street, E.C.,
LONDON.

29 Neuerwall,
HAMBURG.

5 Rue Barbette,
PARIS.

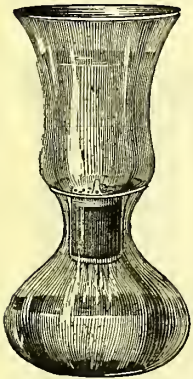
MAWSON'S FILTERS.

(IMPROVED PATENT.)

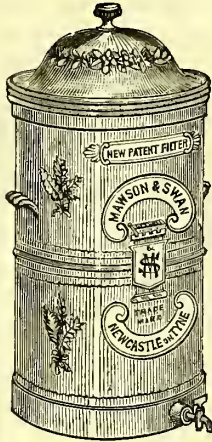
SPECIALLY SUITED TO WARM COUNTRIES.

THE ONLY FILTERS PERFECTED BY THE AID OF EXACT ANALYSIS.

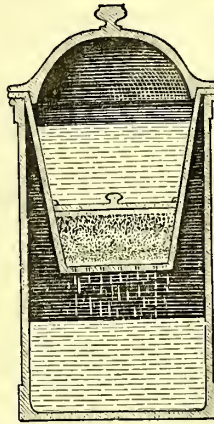
EARTHENWARE.



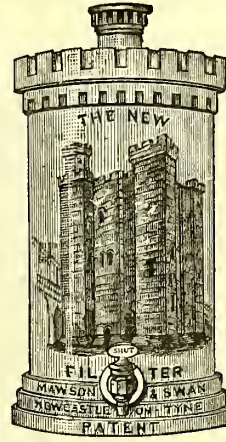
Plain Glass ... 4/6
Do., with handle 5/6
(including recharges)



Size— 1 2
Price— 14/6 21/



3 4 6 gallon.
27/ 35/ 60/ each.



White, decorated 1 2 4
Earthenware.. 35/ 45/ 65/



Engraved Glass .. 6/6
Do., with handle .. 7/6
(including recharges)

THE ABOVE ARE RETAIL PRICES

SIMPLE, SAFE, EFFICIENT, EASILY & ECONOMICALLY RENEWED.

Proprietors—**MAWSON, SWAN & WEDDELL, NEWCASTLE-ON-TYNE.**

WHOLESALE AGENTS—London: Maw, Son & Thompson; Bentley & Sons; Bourne, Johnson & Latimer; William Toogood; Lynch & Co.; Barclay & Sons. Manchester: Woolley, Sons & Co. Liverpool: Evans, Sons & Co.; J. H. & S. Johnson; Symes & Co. Birmingham: Southall Bros. & Barclay. Glasgow: Glasgow Apothecaries' Co. Belfast: Grattan & Co. Cork: Goulding & Co.

Carriage free from the Proprietors on receipt of remittance, or may be ordered through any Chemist in the United Kingdom.

CHALMERS' PATENT SAMPLE AND PARCELS POST BOX.

THE ONLY BOX

That fulfils ALL the requirements of the POST OFFICE.

Is fastened INSTANTLY.
Cannot open by accident.
Is immensely strong.
Has no corners.
No seams, joints, nor solder.
Nothing to scratch or tear letters.
Is practically air-tight:—Is used
for Flour, Cherry Blossom,
Sanitas, and Soap-Powders.
Dispenses with string, bags, and
paper.
Saves 19 minutes out of 20.

94,500 SOLD IN THREE MONTHS

SAVING THEIR OWN COST.

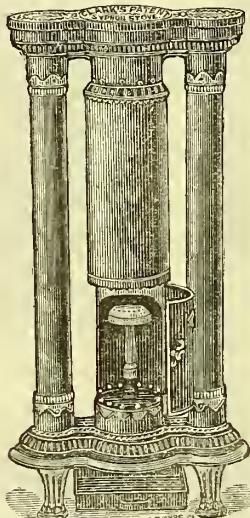
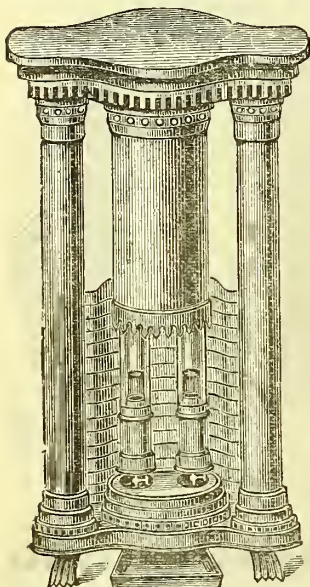
W. B. CHALMERS 37 MINCEING LANE,
E.C.

TO CHEMISTS AND DRUGGISTS.

AGENTS WANTED FOR THE SALE OF CLARK'S PATENT

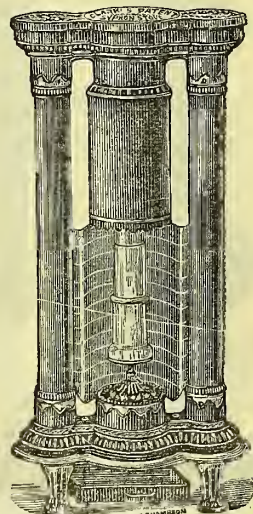
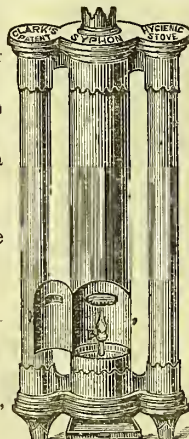
"SYPHON" (REGISTERED TITLE) HYGIENIC CONDENSING GAS HEATING-STOVES.**NO FLUE REQUIRED. ARE FREE FROM SMELL OR SMOKE.**

All injurious vapours are reduced to harmless liquid inside the Stove, and passed out at foot into a tray provided for that purpose.



For Use in Hospitals, Sick Chambers, Bedrooms, Halls, Conservatories, Churches, Schools, &c.

Specially suitable for patients suffering from Bronchial affections, as a moist atmosphere is obtainable when required.



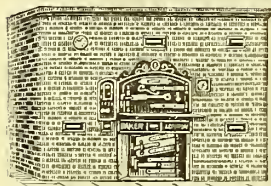
For Terms, Particulars, and Prices, apply to

S. CLARK & CO., Patentees and Makers, Syphon Works, Park Street, ISLINGTON, LONDON, N.
Telegraphic Address—"SYPHON STOVES LONDON" Wholesale Agents--Messrs. MAW, SON & THOMPSON, Aldersgate Street, London, E.C.**JOSEPH BAKER & SONS**

58 CITY ROAD, LONDON, E.C.

HIGHEST AWARDS EVER GIVEN. FIFTEEN GOLD MEDALS.

Highest Award, London, 1834;	Highest Award, Adelaide, 1837;
Highest Award, Amsterdam, 1836;	Highest Award, Barcelona, 1838;
Highest Award, Edinburgh, 1836;	Highest Award, Melbourne, 1839;
HIGHEST AWARD, PARIS, 1839.	

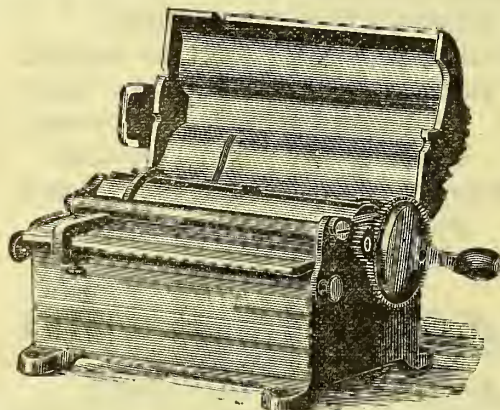


The Bailey-Baker Ovens.

Lozenge and Jujube Machinery.
Kneading Machines for Pill masses.
Mixing Machines for Emulsions.
Mixing Machines for Pomades.
Mixing Machines for Chemicals.
Mixing Machines for Ointments.
Biscuit and Bread Making Machinery.
Confectionery machinery & Ovens.
Sifting and Mixing Machines for Powders.
Grinding Mills for Sugar.
Grinding Mills for Spices, &c.
Chocolate and Cocoa Machinery.
Melting and Jam Pans.
Pill Coaters, Mortars, and Pestles.

JOHN HOLROYD & CO., LIM.Engineers, Tool Makers, and Machinists,
TOMLINSON ST. WORKS, HULME,
MANCHESTER.**MACHINES FOR MAKING
COMPRESSED TABLETS.****MACHINES FOR GUMMING**

Either an entire surface or the edge only of Labels, Wrappers, &c.



Machines Built to Contract for Inventors and Merchants.

STOKES' PATENT**CHECK TILL SYSTEM**

HAS

SIX ADVANTAGES

UNKNOWN IN ANY OTHER TILL SYSTEM.

Price only **£3** Complete.

FULL PARTICULARS ON APPLICATION TO

G. R. STOKES & CO., LIM.
HANLEY, STAFFS.

GLASS BOTTLES

To Messrs. BREFFITS, LD.,
83 Upper Thames Street, London.

Spring Vale, Steel Bank, Sheffield,

GENTLEMEN,—

9 December, 1889.

On perusal of THE CHEMISTS' AND DRUGGISTS' DIARY, 1890, I find you have a good line in feeders and various class of bottles, and I have transferred my order from another house to you in preference. Will you be good enough to let me have the Feeders and Vaselines (or blue opal screw) at once. We are "very low down," but if you could forward the entire order during this week we might wait. I enclose card for full address.

Yours very truly,

ALBERT ARCHER,

WHOLESALE CHEMIST AND DRUGGIST.

Upon receipt of above letter Messrs. E. Breffit & Co., Ltd., wired Mr. Albert Archer asking if copy of the letter could be inserted in this week's "Chemist and Druggist," and received following telegram in reply:—

To Breffits, London.

Sheffield, 10.45 A.M., 10 Dec., 1889.

YES	WITH	PLEASURE	EVERY	WORD
IF	YOU	LIKE	GIVE	YOU
CARTE	BLANCHE	YOURS	MOST	USEFUL
ADVERTISEMENT				

ALBERT ARCHER.

SAMPLES, PRICE LISTS, &c., UPON APPLICATION.

BREFFITS'

(LIMITED),

CHEMISTS' AND DRUGGISTS' BOTTLES AND GLASSWARE MANUFACTURERS,
83 UPPER THAMES STREET, LONDON.

TELEGRAMS: "BREFFITS LONDON."

TELEPHONE No. 1843.

R. H. BARRETT'S NEW PATENT BOTTLE.

THE ONLY REALLY PERFECT CAPPED BOTTLE FOR VASELINE, POMADE, DRY POWDERS, &c.

PRICES (in 5-gross Lots):—Fitted with STRONG METAL CAPS, CORK-LINED, in various colours, very attractive in appearance—1 oz., 12/; 1½ oz., 13/; 2 oz., 13/6; 3 oz., 16/; 4 oz., 18/ per gross.

Fitted with best BOXWOOD CAPS—1 oz., 15/6; 1½ oz., 16/6; 2 oz., 17/6; 3 oz., 21/6; 4 oz., 24/6 per gross.

Chemists' and Perfumers' Bottles in great variety, Plain or Stoppered. Orders may be sent to the PRINCIPAL WHOLESALE HOUSES.

R. H. BARRETT,

FLINT GLASS BOTTLE WORKS,
THE OVAL, CAMBRIDGE HEATH, LONDON, E.

Telegraphic Address—"FOREFRONT LONDON."

[2]



NEW PATENT AIR-TIGHT CHEMIST JAR.

A slight turn of the knob presses the indiarubber Band against the glass, and renders the vessel absolutely air-tight. The Stopper is made of pure Nickel, of handsome shape.

INVALUABLE FOR SHOW BOTTLES, CHEMISTS, CONFECTIONERS, &c.

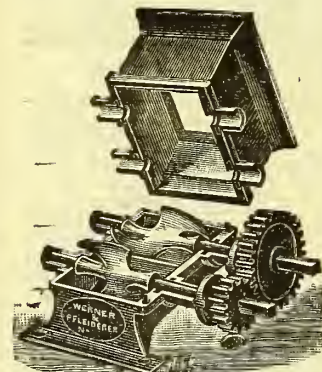
Samples and Prices of all Chemists' Sundriesmen.



Section of the Nickel
Stopper when closed.

C. MELIN,

37 CRUTCHED FRIARS, MARK LANE, E.C.



Size 3, Type I, for 1-lb. Mass.

THE "UNIVERSAL" KNEADING AND MIXING MACHINE FOR PILL MASS MAKING,

ALSO FOR

Horse Balls, Tooth Pastes, Ointments, Soaps, Powders, and for general Mixing and Incorporating.

REPLACES WITH ADVANTAGE ALL OTHER APPLIANCES FOR THESE PURPOSES.

Made in various sizes, to do from ½ lb. up to 1 ton at a time.

WERNER & PFLEIDERER, 86 Upper Ground St., LONDON, S.E.
Blackfriars Bridge,

CARTER'S DISINTEGRATORS

Will Pulverise, Granulate, or Shred almost any Mineral, Vegetable, or Animal Substance.

NEARLY 1,300 IN USE

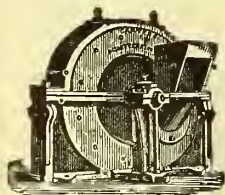
IN ALL PARTS OF THE WORLD.

For Grinding Sugar, Bark, Linseed, Ginger, Pepper, Spices, Salt, &c., this Machine is invaluable.
Made in 9 Sizes. Illustrated Catalogue may be obtained on application.

Samples of ANY Material will be Ground free of charge.

J. HARRISON CARTER, 82 Mark Lane, LONDON, and 3 Rue du Louvre, PARIS

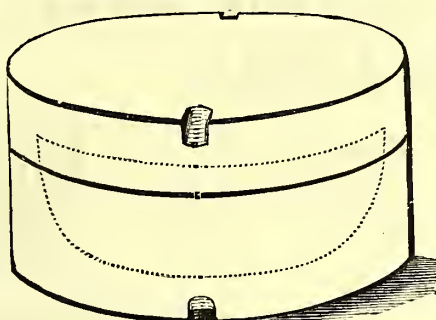
Telegraphic Address—Milling London.



WILLIAM TOOGOOD'S WAREHOUSE AND SHOW ROOM, BURLINGTON BUILDINGS, HEDDON STREET, REGENT STREET, LONDON, W.

TOOGOOD'S IMPROVED PATENT EARTHENWARE COVERED POTS

Are claimed to be the most
perfect and convenient yet offered to
the Trade.



*Owing to the increasing demand
for our Patent Pots, we have in-
troduced a Special THIN Series
for Dispensing.*

*These Pots are beautifully
glazed and finished, and, being
very light, are specially adapted
for sending by post.*

ORDINARY THICKNESS—

1 dr.	2 dr.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8	ounces.
$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{2}{2}$	$\frac{2}{10}$	$\frac{3}{4}$	$\frac{4}{6}$	$\frac{5}{6}$	per doz.

THIN FOR DISPENSING—

$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{1}{2}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{4}{8}$	$\frac{6}{5}$	$\frac{8}{6}$	ounces.
									per doz.

Forwarded Free to all parts of the World on application, enclosing business card.

WILLIAM TOOGOOD'S NEW ILLUSTRATED PRICE CURRENT

OF

Glass Bottles, Glassware, Earthenware,
Apparatus, Implements, and Utensils,
FOR THE USE OF CHEMISTS AND DRUGGISTS.

DRUGGISTS' SUNDRIES OF ALL KINDS.

Colonial and Foreign Enquiries and Correspondence solicited.

NOTICE.

E. A. HEARN & CO.

WHOLESALE AND EXPORT GLASS BOTTLE MANUFACTURERS,

Respectfully beg to inform their Customers and Friends that they have completed, and are now working their NEW and EXTENSIVE GLASS WORKS at Lea Bridge, Clapton, London, E. The Furnaces are built in the LATEST STYLE, and fitted with EVERY MODERN IMPROVEMENT. Large orders can now be executed at a few days' notice.

Until further notice all communications should be sent as usual to

381-3 KINGSLAND ROAD, LONDON, E.

DISPENSING BOTTLES & PHIALS

WE NOW SUPPLY OUR CELEBRATED

6 and 8 oz. Bottles at 7/6 per gross.

3 „ 4 oz. ditto 6/6 „

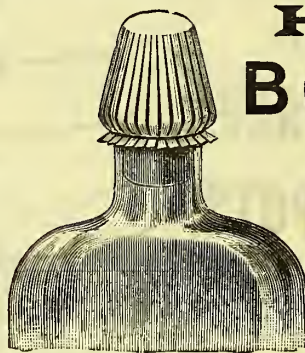
All other Sizes and Kinds equally low.

I. ISAACS & CO.

GLASS BOTTLE MANUFACTURERS,

25 Francis St., Tottenham Court Road, London, W.C.

Established upwards of 50 years. Bankers: London and Westminster Bank.



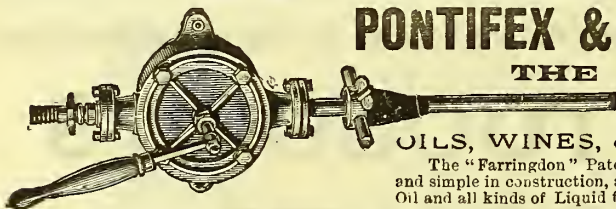
HUNT'S BOTTLE CAPS

Plated Paper, from 8d.
per Gross.

LONDON:

25 Great Windmill St., W.

Depôt of DIGNIE'S ENZYMES.



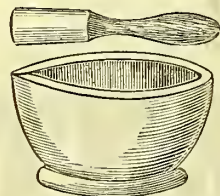
PONTIFEX & WOOD, LD., Farringdon Works, LONDON, E.C.

THE "FARRINGTON" PATENT PUMP,

FOR PUMPING

OILS, WINES, & OTHER LIQUIDS FROM CASKS, &c.

The "Farrington" Patent Pump, with Improved Taper Barrel attachment. It is easy to work and simple in construction, and is admitted to be the best article in the market for pumping Paraffin Oil and all kinds of Liquid from barrels or tanks into other receptacles.



WEDGWOOD ACID-PROOF MORTARS AND PESTLES.

ALSO MANUFACTURERS OF

Funnels, Evaporating Pans, Electric Battery Fittings, Bed Pans, Urinals, Medicine Spoons, Physic Cups, Sick Feeders, Bleeding Basins, Medicine Measures, Eye Cups, Inhalers, Nursery Lamps, Wall Tiles, &c.

PRICE LIST ON APPLICATION. SPECIAL QUOTATIONS FOR LARGE ORDERS.
Any Article not bearing the Stamped Trade Mark "WEDGWOOD" is not made by us.

JOSIAH WEDGWOOD & SONS, WETTRURIA, STOKE-ON-TRENT.
London Rooms: 81, ANDREW'S BUILDINGS, HOLBORN CIRCUS.

CHEMISTS' SHOP FITTINGS, SHOW CASES, &c.

FOR BEST WORK AT LOW PRICES SEND TO

G. TREBLE & CO., 2 KINGSLAND GREEN, DALSTON, LONDON.

PLANS AND ESTIMATES FREE. SPECIAL ATTENTION PAID TO EXPORT ORDERS.

PRIZE-MEDAL,
International
Health Exhibition,
1884.

THE NEW PERMANENT

ENGRAVED WINDOW TABLETS

IN RUBY, BLUE, AMBER, AND OPAL GLASS.

Send particulars of size, subject matter, and colour, when price for one Tablet and upwards will be sent.

For Proprietary Articles, 100 8x6 Ruby Tablets, £3 15s. 0d.

J. R. CORSAN, THE LONDON SAND-BLAST WORKS, 80 GRAY'S INN ROAD, W.C.
TO PREVENT FRAUD, DEMAND BUSINESS CARD FROM TRAVELLERS.

AWARD OF MERIT,
International
Sanitary Exhibition,
1881.

CARBOLIC ACID,

Liquid Crude & Refined, Crystals, Ice & Glacial, B.P.

SPECIALITY.—Our Refined Liquid Carb. Acid is a bright pale colour, guaranteed 97 % to 99 %, and free from all impurities, such as Sulphuretted Hydrogen, &c.

CONTRACTS for 1890.—We shall be pleased to submit very lowest prices for delivery during 1890 to large buyers. State approximate quantities required.

CARBOLIC POWDERS.—5 % to 20 %, from £4 per ton. Pink, white, or grey colours.

Pink ditto, in large black and gold tin boxes, 1/- sizes, 4/6 per dozen; 1/6 sizes, 6/- per dozen.

CREOSOL or SANITARY FLUID.—Half usual prices. Samples and quotations on application.

BUY FROM THE MAKERS—THE CHEAPEST HOUSE IN THE TRADE.

HAMILTON & CO., WANDSWORTH, LONDON, S.W.

WILEY'S CHEMICAL ESSENCE

FOR

LAMENESS IN HORSES.

Agents Wanted in every Town. Handbills, with Name and Address, supplied gratis

50 YEARS' UNBROKEN SUCCESS.

SOLE MAKER & PROPRIETOR, J. ROOKLEDGE, CHEMIST, EASINGWOLD, YORKS.

TO BE HAD OF USUAL WHOLESALE HOUSES.

WILKINSON'S COMPRESSED

They are introduced to the public to enable them to make their own HOP BITTERS, YEAST, HOME BREWING, and numerous other purposes. Full particulars given in each packet.

Samples and Prices sent on application to

A. WILKINSON & SONS, 37 CANNING PLACE, LIVERPOOL

P.S.—Chemists will naturally see the great advantage in making their own Bitters from the Pure Hop itself.

Dealers in every description of Isinglass.

Best Hops compressed into small parcels of one pound and half-pound, and sent out in cases containing 30 lbs. each. These hops are specially selected and compressed for keeping purposes, and will retain their aromatic strength for a considerable time.

ENGLISH HOPS.

WALKER, TROKE & CO.

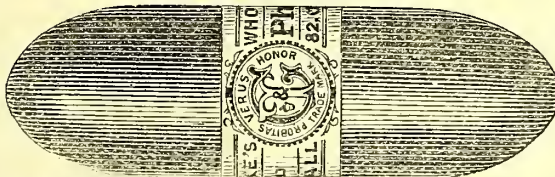
WHOLESALE AND EXPORT DRUGGISTS

82 CITY ROAD, LONDON, E.C.

SOLE MAKERS OF

O. F. H. SEELTON, Esq., M.R.O.V.S.L.,
Leyton, Essex,

Writes:—
April 5, 1889.
I have great pleasure in saying that your Quinine Tonic Ball exceeded my anticipations. Horses in low condition, and those recovering from illness, showed marked improvement after treatment with them. The Quinine Tonic Ball should prove a boon to all owners of horses.



J. G. CROSS, Esq., M.R.O.V.S.L.,
Shrewsbury,

Writes:—
May 20, 1889.
I have used your Quinine Tonic Balls, and consider them invaluable for animals recovering from any severe illness, specially from influenza.

GABRIEL & TROKE'S QUININE TONIC and STIMULATING GELATINE CAPSULED HORSE BALLS

(Registered No. 81,291),

Alterative, Condition, Cordial, Cough, Diuretic, Fever, Physic, and Worm Balls.

GABRIEL & TROKE WERE THE FIRST MAKERS OF GELATINE CAPSULED HORSE BALLS.

S.V.R.**PURE GRAIN SPIRIT 56 O.P., B.P., 18/5**, used by the principal Wholesale Druggists**Do. Do. DOUBLE DISTILLED 18/9**

Cash with Order.

Reductions for Quantities.

SAMPLES FREE.**STEPHEN SMITH & CO., BOW, LONDON, E.****S.V.R.****SPECIALITY FOR PERFUMERY.**

This pure grain spirit, which has been thrice rectified and filtered through charcoal, is being largely used in making high-class Perfumes.

Price, **19/-**, 56 o.p.; **19/6**, 60 o.p. Cash with order.

Reductions for Quantities.

STEPHEN SMITH & CO., BOW, LONDON, E.**PURE SPIRITS OF WINE.**(STEAM STILL)
ONLY.**60 o.p., 18/9 per gall.; 56 o.p., 18/3 per gall.**(SPECIAL QUOTATIONS
TO LARGE CONSUMERS)**CASH WITH ORDER.****GEORGE PHILLIPS & CO., ST. ANDREW'S DISTILLERY, CLERKENWELL ROAD, LONDON, E.C.****JAMES
BURROUGH,****S.V.R.****CALE ST., CHELSEA, S.W.****and Methylated Spirit****AT LOWEST PRICES.****WRITE FOR QUOTATIONS.****BEESWAX.****W. H. B. WHITE** { put up in 2-lb. parcels in cases of 54 lbs.**W. H. B. REFINED** { in 2-lb. cakes in cases 130 lbs. 1-lb., 1/2-lb., and oz. cakes.

The purity of these goods is certified by the following eminent chemists: S. P. Sharpless, State Assayer, Boston; J. W. Taylor, Associate of the Society of Public Analysts of Eng., Montreal, P. Q.; Edward Davies, F.C.S. and T. I. C. and C. Royal Institution, LIVERPOOL, Eng.; Bernard Dyer, D.Sc., F.C.S., F.I.C., Member of the Society of Public Analysts, 17 Great Tower Street, LONDON, E.C., Eng.; Wm. T. Wenzel, Analyst and Assayer, San Francisco, Cal., and may be obtained of any of the leading Wholesale Druggists in the Northern and Midland Counties.

CRUDE BEESWAX,

Foreign and Domestic.

CERESINE,

Yellow and White.

PARAFFINE WAX,

Refined, all Grades.

We will deliver our goods in 5-cwt. lots ex quay, in any city which is the Terminus of a Steamship Line throughout the Kingdom, without trouble or expense to the Buyer.

CABLE ADDRESS—"BOWDLEAR BOSTON."

OZOKERITE,

In Bales.

CARNAUBA,

or BRAZIL WAX.

JAPAN WAX

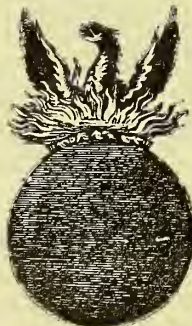
in Cases.

W. H. BOWDLEAR & CO., BOSTON, MASS., U.S.A.**Office and Warehouse—36 CENTRAL WHARF.****The Original****Arnicated****Corn and****Bunion****Plasters.**

ESTABLISHED

A.D.

1848.

Please see that **YOUNG'S** goods are supplied, as there are many worthless imitations.**HENRY YOUNG, Manufacturer, LONDON.****COLTHURST & HARDING,****BRISTOL**—Manufactories: Phoenix Wharf and Temple Gate. Offices: Temple Gate. Telegrams: "Phoenix Bristol."**LONDON**—Manufactories: Alpha Works, Millwall E. City Office: 16 Fish Street Hill, E.C. Telegrams: "Alpha Brand London."**HARD LUSTROUS ENAMEL,**
IN ALL THE ART SHADES.

For all kinds of decoration on Wood or Iron. Dry with a surface like Porcelain. Sold in small or large Tins, or in bulk. Prices and shades on application.

WHITE LEAD, ZINC WHITE, PAINTS & COLOURS OF ALL KINDS.**MIXED PAINTS READY FOR USE,**
In Tins, 1, 2, 4, 7, and 14 lbs. each.**HIGH-CLASS VARNISHES**Of all kinds, for Coachbuilders, Decorators, &c. **OIL BOILERS, REFINERS, & MERCHANTS**
COLOUR OF PAINT. Export Orders receive special and prompt attention

ANGLO-AMERICAN OIL COMPANY, LIM.

LONDON.

HULL.

GREAT YARMOUTH.

LIVERPOOL.

NEWCASTLE.

LYNN.

BRISTOL.

SOUTH SHIELDS.

STOCKTON.

HEAD OFFICES—16 ST. HELENS PLACE, BISHOPSGATE ST., LONDON, E.C.

American Refined Petroleum.

The long established superiority of **"Tea Rose," "Royal Daylight," "White Rose,"** and **"Westminster"** American Petroleum Oils, manufactured by the Standard Oil Company of the United States, is well known to the Trade and to Consumers, and no Oils are so widely and justly celebrated. Their superior burning qualities, freedom from odour and from any tendency to smoke, and their general excellence, have placed them above comparison with any and all other brands.

In order to meet the largely increasing demand for these oils, and the better to supply the Trade generally, we have arranged to import them from the United States in bulk as well as in barrels. We shall fill the Oil which we import in bulk into barrels at our own wharves, and as our cooerage facilities are modelled upon the best American methods, buyers will receive the Oil in tight and clean packages.

Our Tank Steamers, **"Manhattan"** and **"Bayonne,"** in their construction, arrangements, power and size, are in advance of any tank steamers afloat, and each has a carrying capacity of 4,000 tons, equivalent to 28,000 barrels of Oil by each steamer.

We shall keep large stocks of these Oils constantly on hand at all our Importing Centres and Depôts, and in this manner be able to supply the Trade promptly. Being the representatives in the United Kingdom of the Standard Oil Company, of America, we are in the best possible position for supplying the trade on the most favourable terms.

To cover the special requirements of London buyers, we have completed the construction of a large Storage Wharf at Purfleet, which will be worked in connection with our Depôts at—

AILS A STREET, BOW CREEK, E.

CANAL WHARF, CHALK FARM ROAD, N.W.

ALBANY WHARF, ALBANY ROAD, CAMBERWELL, S.E.

HORN & SON.

OFFICES FOR BRITISH AND FOREIGN
PATENTS AND TRADE MARKS,
SOMERSET CHAMBERS, 151 STRAND, LONDON
(NEXT TO SOMERSET HOUSE)
Guide to New Patent Law and Registration gratis.

PURE WHITE BEESWAX

Guaranteed pure, of the best quality, in blocks, cakes, or other forms.
Candles, and all other articles manufactured of Beeswax,
at the lowest possible prices.

QUOTATIONS FREE ON BOARD HAMBURG AND OTHER PORT

Lüneburger Wachsbleiche Wax Bleaching Works,
LUNEBURG (GERMANY).

HYDE, NASH & CO.

DRUG AND GUM MERCHANTS AND IMPORTERS,
16 Philpot Lane, LONDON, E.C.

SPECIALITIES—

Arabic and Varnish Gums, Glucose, Glycerine, Beeswax,
Honey, Rhubarb, Insect Powder, Saffron, &c., &c.

Country orders for original packages included in public sale purchases at fractional margins.

THE ALOFAS REMEDIES

TINGTURES, PILLS, OINTMENTS, EMBROGATION, ETC.

LIBERAL TERMS TO CHEMISTS. Write for Pamphlet and Circular
sent post free.

THE ALOFAS COMPANY, Central Depot, 20 New Oxford
Street, LONDON, W.C.

OL. LAVAND. RECT.
(DURRANT).

This is the only real substitute for Mitcham Lavender. 1 lb. 15/ 1/2 lb. 8/
1/4 lb. 4/3. 1 lb. sent post free, with first-rate formula for Lavender Water,
for 15/6.

G. R. DURRANT, Perfumer, HERTFORD.

S. SAINSBURY'S

Prepared from the finest
English Lavender and
other most choice Scents.

Lavender

176 & 177 STRAND, LONDON. **Water.**

Wholesale and Shipping terms on application.

GLYCERINE.

SUCHOMEL'S GLYCERINE (Lion Brand) is ABSOLUTELY
PURE and the CHEAPEST in the Market.

Sole Agents—**VAN GEELKERKEN & CO.**

79 MARK LANE, LONDON, E.C.

MOUILLA LIQUID SOAP

The invention of Dr. DUNCAN, St. Petersburg.
Beautifully Transparent Golden Colour. Delicately Perfumed.
As prescribed by most eminent Skin Physicians.—See Testimonials.
In handsome bottles with sprinkler tops. Retail. 6d. and 1/6
per bottle. Wholesale terms on application to
The Mouilla Liquid Soap Co., Ltd., 6 Adam St., Strand, W.C.

**PRECIPITATED CHALK, WHITEST AND
PUREST.**

CHEAPEST SELLERS IN THE MARKET.
ALSO CHEMICALS, DRUGS AND OILS.

APPLY TO

AUG. LEVERMORE & CO.,
8 LIME STREET LONDON, E.C.

GEORGE HAYNES & CO.

Hampstead Cotton Mills, Stockport,

MANUFACTURERS OF

BLEACHED AND ABSORBENT WOOLS,

GREY WOOL, COLOURED WOOLS, & JEWELLERS' SHEETS.

Two Silver Medals and Diploma of Honour (Highest Award) given at Paris
Universal Exhibition, 1889, for Superior Quality and Manufacture.

Telegraphic Address—"HAYNES STOCKPORT."

FREDK. FINK & CO.,

10 & 11 MINING LANE, LONDON, E.C.

SPECIALITIES: Glycerine—Gum Arabic—Gum

Tragacanth—Pure Beeswax—Honey—Vanilloes.

REDMOND'S

LONDON "STOMACH WASH"

AND LIVER CORRECTOR (Registered).

This pure, health-restoring aperient cleans the coats of the stomach, and increases
the activity of the liver. To be obtained of Chemists, and of Messrs. BARCLAY &
SON (Lim.), 95 Farringdon Street, London; price 2/6; sample bottles, by post, 2/9.
Sold in Cases containing six bottles.

EMP. BELLADONNA.

ON SWANSDOWN, 16 IN. WIDE.

17s. per Doz. net cash.

JOHN QUILLIAM & CO., Plaster Works, Manchester.
Cowburn Street, [2]

ANOTHER GREAT ADVANCE IN DERMATOLOGY.

ANTECZEMA,

A Wonderful Remedy for Inflamed and Irritable Skin Diseases. A few
Applications will Cure the most Inveterate Cases of Eczema and Psoriasis.
In Bottles Price 2/9.

Wholesale of F. NEWBURY & SONS, or direct from the Sole Agent,
R. C. LAYNG, Chemist, 93 Finsbury Pavement, London, E.C.

TO LET.

FOUND DEAD

BY SANFORD'S RAT POISON.

"I have found 145 rats killed in my farm buildings by it."—C. Wilson Offord.
"It is the most certain remedy I have ever tried. Little pellets about the size of
a pea are put in the rat holes or in their runs. I destroyed over 200 rats from one
dressing with it."—C. Cook, Grange Farm, Ellesmere, Salop. It is, without doubt,
the best ever introduced. Price 6d., 1s., 2s., and 3s., of Chemists.
SANFORD'S MICE POISON for Houses, Buildings, Corn Stacks, &c. Cannot
be excelled. Has given entire satisfaction for the past 24 years. In packets 3d.,
6d., 1s., and 2s. each, with directions for use, of SANFORD & SON, Sandy, Beds.
Liberal terms to Chemists. Wholesale of Barclay & Son, Sanger & Son,
Newbery & Sons, Edwards, and others, London (England).

HOMOEOPATHY

AGENTS WANTED. The "ACME" AGENTS' CASE, £3 3s.—Retail Value, £9.

HOMOEOPATHY

PHOTO-PRINT of this HANDSOME CASE free on receipt of Post Card.

HOMOEOPATHY

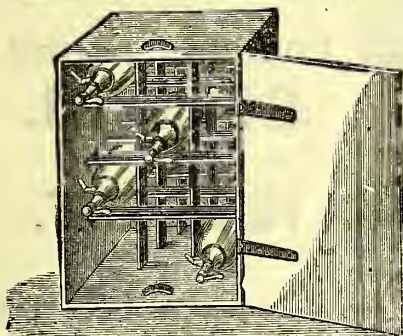
WATSON & WATES, 93 Leadenhall St., LONDON, E.C.

JOHN OWEN, JUNIOR

PACKING CASE MANUFACTORY AND STEAM SAW MILLS.

ESTABLISHED 1840.

37 & 38 MINORIES, LONDON, E.C.

MANUFACTURER OF
Cases of every description for Home use
and Exportation.

Wine Laths, Oak and Deal.

Mineral Water Bin Cases and Trays.

Bottle Crates, Straw Envelopes.

Cases Lined with Tin, Zinc Copper, &c.;

ALSO MANUFACTURERS OF THE

"Acme" Incubator & Poultry Appliances.



PRICE LISTS FORWARDED ON APPLICATION.

EXPORT ORDERS RECEIVE SPECIAL ATTENTION.

ESTABLISHED
1772.**HENRY'S CALCINED MAGNESIA**

Continues to be prepared with scrupulous care in the greatest chemical purity, by

Messrs. THOMAS & WILLIAM HENRY, 11 East Street, St. Peter's, Manchester,

And is sold in bottles, authenticated by a Government Stamp bearing their Names. Trade Mark, "Henry's Calcined Magnesia."

Price 4s. 6d., or 2s. 9d.

NEW YORK—MESSRS. W. H. SCHIEFFELIN & Co., William Street. PARIS—MESSRS. ROBERTS & Co., 5 Rue de la Paix

GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.**JOHN OAKEY & SONS,**

MANUFACTURERS OF

Glass Paper, Emery and Glass Cloth; Emery, Black Lead, Emery Wheels, Pumice
Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish,
Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.**OAKEY'S WELLINGTON KNIFE POLISH,**Prepared expressly for Oakey's Patent Rubber Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines.
Sold in Canisters with perforated Tops to prevent waste, at 1d., 2d., 3d., 6d., 1s., 2s. 6d., and 4s. each.**OAKEY'S NON-MERCURIAL SILVERSMITH'S SOAP,**

For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

OAKEY'S "POLYBRILLIANT" (Registered).A Magic Pomade for Cleaning Brass, Copper Tin, Pewter, Britannia Metal, &c. Never becomes dry and hard like other Metal Pastes.
Tins 1d., 2d., 3d., and 6d. each.**WELLINGTON BLOCK BLACK LEAD,**

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

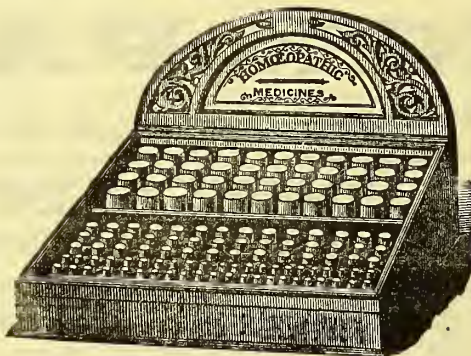
WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.

Highest award and Prize Medal, Philadelphia Exhibition, 1876; and Boston, 1883. Gold Medal, Crystal Palace, 1851

HOMŒOPATHIC MEDICINES

SALEABLE SELECTIONS.

NO. 3.
MAHOGANY
COUNTER
SHOW-CASE.
Price £2 12s.



DIMENSIONS.

LENGTH, 15 in.
BREADTH, 11 in.
HEIGHT, 5½ in.

Contents realise
£4 8s. 6d.

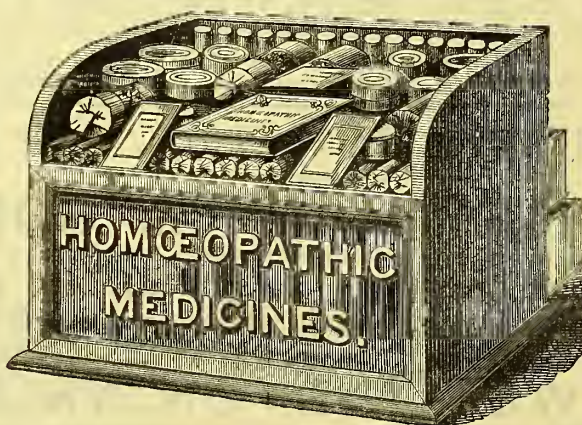
COUNTER SHOW-CASES.

	£	s.	d.
No. 1.—A Small Selection	1	8	0
2.—An Enlarged Assortment	2	2	0
4.—With Sundries and Two Drawers	3	0	0
6.—Medicines in View; Extra Supply in Drawer	6	18	0
7.—Large Case, Bent Glass Top, Handsome Tablet and Four Drawers	9	16	0

GENERAL PRICE LIST.

	1/ size.	6d. size.
Pilules	5/	3/ per dozen
Tinctures	5/	3/ "
Camphor Solution and Pilules	5/	3/ "
Arnica External Tincture	7/	4/ "
Tamus	6/	4/ "
External Tinctures, except above	5/	3/ "
Liniments	8/	4/ "
Cerates	8/	4/6 "

NO. 5.
SHOW - CASE
WITH
BENT GLASS TOP
AND
TWO DRAWERS.
Price, £5 10 0



DIMENSIONS

LENGTH, 17½ in.
BREADTH, 12½ in.
HEIGHT, 12 in.

Contents realise
£9 12 6

All Prices subject to cash discount. For illustrated list send Trade Card.

JAMES EPPS & CO.

HOMŒOPATHIC CHEMISTS

~~~~~(FIRST ESTABLISHED)~~~~~

## 48 THREADNEEDLE ST., LONDON.



# SPECIAL TERMS FOR CHEST PROTECTORS

## LYNCH & CO.

Respectfully invite the attention of Chemists to the subjoined Term for their CHEST PROTECTORS, which are made of the very best quality materials as hitherto.

**THEY DO NOT SUPPLY SECOND QUALITY. ONLY THE BEST!**

Catalogue  
number.

### 324 CHAMOIS AND FLANNEL.

|                   | No. 1          | 2    | 3    | 4   | 5   | 6 |
|-------------------|----------------|------|------|-----|-----|---|
| Gents' ... ..     | per dozen 10/6 | 12/6 | 14/6 | 17/ | 23/ | — |
| Ladies' ... ..    | " 7/6          | 9/6  | 11/6 | 14/ | 20/ | — |
| Children's ... .. | "              | "    | "    | 6/  | "   | " |

### 325 FELT, SCARLET, OR WHITE.

|                   |       |      |      |      |     |     |
|-------------------|-------|------|------|------|-----|-----|
| Gents' ... ..     | " 10/ | 11/6 | 13/6 | 16/  | 21/ | 27/ |
| Ladies' ... ..    | " 7/  | 9/   | 11/  | 13/6 | 19/ | 22/ |
| Children's ... .. | "     | "    | "    | 5/   | "   | "   |

Sizes of above—No. 1, 9 × 10 in.; No. 2, 9½ × 11 in.; No. 3, 10½ × 12 in.; No. 4, 12 × 14 in.; No. 5, 13 × 15 in.  
No. 6, 14 × 16 in.

|                                                  | No. 1 | 2   | 3   | 4    | 5   | 6   |
|--------------------------------------------------|-------|-----|-----|------|-----|-----|
| 326 "DREADNOUGHT," felt, covering chest and back | 16/6  | 22/ | 27/ | 33/  | 44/ | 50/ |
| Children's ... ..                                | "     | "   | "   | 12/6 | "   | "   |

326A "DREADNOUGHT," chamois and flannel, per doz., No. 1, 18/; No. 2, 24/; No. 3, 30/; No. 4, 36/; No. 5, 48/6; No. 6, 55/.

326B "WAISTCOAT PATTERN," chamois and flannel, per doz., No. 1, 23/; No. 2, 31/6; No. 3, 40/; No. 4, 49/6; No. 5, 61/; No. 6, 71/.

326C "WAISTCOAT PATTERN," felt, scarlet and white, per doz., No. 1, 20/; No. 2, 28/6; No. 3, 36/; No. 4, 44/; No. 5, 54/6; No. 6, 67/.

326D "CUIRASS," chamois and flannel, per doz., No. 1, 26/6; No. 2, 33/; No. 3, 39/6; No. 4, 47/6; No. 5, 59/6; No. 6, 72/.

327 "CUIRASS," felt, reaching from neck to hips, front and back, and fastening with laces and eyelets, five sizes, per doz., No. 1, 24/; No. 2, 30/; No. 3, 36/; No. 4, 43/; No. 5, 54/; No. 6, 66/.

(Sizes of "Cuirass"—No. 1, 11½ × 9½ in.; No. 2, 13 × 11 in.; No. 3, 16 × 11½ in.; No. 4, 17 × 13 in.; No. 5, 18 × 14 in.; No. 6, 18 × 17½ in.)

327A CUIRASS JACKETS, with half sleeves, buttoning down front, made of perforated chamois leather and porous scarlet flannel, in four sizes, each, 32 × 18 in., 6/6; 34 × 18½ in., 7/6; 37 × 20½ in., 8/6; 39 × 21 in., 9/6.

(Larger or smaller sizes made to order.)

## CHEST PROTECTORS MADE OF PINE FELT.

*Specially Recommended for Rheumatism.*

|                                            | No. 1         | 2   | 3    | 4   | 5   |
|--------------------------------------------|---------------|-----|------|-----|-----|
| SINGLE—<br>Ladies' ... ..                  | per dozen 7/6 | 9/6 | 11/6 | 14/ | 20/ |
| DOUBLE, Covering—<br>Chest and back ... .. | 16/6          | 22/ | 27/  | 33/ | 44/ |

|                          |                      |
|--------------------------|----------------------|
| Ordinary Quantity ... .. | 10% Monthly Account. |
| By £2 Worth ... ..       | 15% " "              |
| By £10 Worth ... ..      | 20% " "              |
| By £50 Worth ... ..      | 25% " "              |

Aldersgate Street, London, E.C.



# Apollinaris

"THE QUEEN OF TABLE WATERS."

The FILLING at the APOLLINARIS SPRING (Rhenish Prussia) amounted to

|                   |                |           |              |
|-------------------|----------------|-----------|--------------|
| <b>11,894,000</b> | <b>BOTTLES</b> | <b>IN</b> | <b>1887,</b> |
| <b>12,720,000</b> | "              | "         | <b>1888,</b> |
|                   | AND            |           |              |
| <b>15,822,000</b> | "              | "         | <b>1889.</b> |

"The annual consumption of this favourite beverage affords a striking proof of the widespread demand which exists for table water of absolute purity, and it is satisfactory to find that, wherever one travels, in either hemisphere, it is to be met with; it is ubiquitous, and should be known as the cosmopolitan table water. "Quod ab omnibus quod ubique."—*British Medical Journal*.

**Cadbury's Cocoa** IS SOLUBLE  
and ABSOLUTELY PURE. ABSOLUTELY PURE.

DO NOT LET YOUR CHILD DIE!

Fennings' Children's Powders Prevent Convulsions; are Cooling and Soothing.

**FENNINGS' CHILDREN'S POWDERS,**

For Children Cutting their Teeth, to Prevent Convulsions.

Sold in Stamped Boxes, at 1s. 1½d. and 2s. 9d. (great saving), with full Directions.

Do not contain Calomel, Opium, Morphia, nor anything injurious to a tender babe.

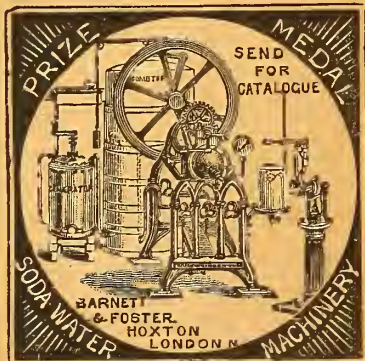
Chemists, by applying to the Patent Medicine Houses and Wholesale Chemists, can obtain, free of any charge, a supply of "FENNINGS' EVERY MOTHER'S BOOK," for Counter distribution.

EASY  
TEETHING.

SAFE  
TEETHING.

## SODA WATER MACHINERY

And all Appliances for the Manufacture of all Aerated Drinks in the highest state of perfection.



PRIZE MEDALS—London, 1862, 1873, 1874; Paris, 1867, 1878; Vienna, Philadelphia, Cape, &c. HIGHEST AWARD—Sydney, 1879-80.

FIRST-CLASS CERTIFICATES & 4 PRIZE MEDALS, CALCUTTA, 1883-84.

THREE GOLD, TWO SILVER, & TWO BRONZE MEDALS, INTERNATIONAL HEALTH

EXHIBITION, LONDON, 1884. 5 FIRST ORDERS OF MERIT, ADELAIDE, 1887.

Our Machines are universally adopted throughout the world for the manufacture of all kinds of Aerated Drinks, whether in bottles, syphons, or counter fountains. There are in England alone over 2,000 factories where our Machinery is in use, besides many thousands in India and the Colonies. They are the simplest, safest, and cheapest for the purpose, and produce a highly-charged gaseous water free from metallic or foreign contamination. All our Machines have a Gasometer, and it forms a most important necessity where purity of product is required, as in this the gas is expanded and purified; it also removes the possibility of accidents by explosion, and avoids the necessity of complication—these we consider of greater importance than the saving of a few inches of floor space.

A complete Soda Water Plant, including Bottling Machine, for producing 100 dozen Lemonade, Ginger Beer, Ale, &c., per day, is supplied for £40.

ILLUSTRATED CATALOGUE FORWARDED FREE.

**BARNETT & FOSTER,**  
26<sup>th</sup> Eagle Wharf Road, New North Road, London, N.